

Palmtop

The journal for today's Psion user

Contacting Palmtop

Any comments or suggestions regarding the content of PALMTOP should be directed to the editor at the following address:

Palmtop Publications
PO Box 188
BICESTER
Oxfordshire
OX6 0GP
ENGLAND

Tel: +44 (0)1869 249287

Fax: +44 (0)1869 246043

Email (general): info@palmtop.co.uk
or (to contact the editor): editor@palmtop.co.uk
World Wide Web: www.palmtop.co.uk

Submissions

Any contributions of material published within the pages of PALMTOP (excluding 'On The Net' and Q&A) will earn the author a minimum of one free issue added to their subscription. If you wish to write feature articles for the magazine then please contact the editor to discuss your ideas.

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Back issues are available at £4 each in the UK, £4.50 in Europe and £5.50 elsewhere (while stocks last). All prices include postage. Just send payment in the usual way, stating which issues you require.

Subscriptions

PALMTOP is available by subscription only from the address given above, price £24 within the UK, £27 in Europe and £33 worldwide. Price covers 6 issues and all postage (and airmail costs for European/worldwide subscriptions). VAT is not payable on PALMTOP.

Payment for subscriptions or back issues can be made by cheque or Money Order (payable to 'PALMTOP PUBLICATIONS') in UK FUNDS ONLY. Payments can also be made using VISA, MASTERCARD, AMERICAN EXPRESS, EUROCARD, DELTA, JCB, ACCESS, SOLO and SWITCH cards. Please call, fax, post or email your card details.

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(Volume 5, issue 1)

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Editorial

Watching the EPOC palmtop scene at the moment seems rather like the old joke about waiting for a bus. Nothing for ages, then all of a sudden a whole string of them come along together. We wait a full two years between the Series 5 and the 5mx, then within a matter of weeks along comes the Ericsson MC218 and Oregon Osaris, the Series 7 and netBook, with more undoubtedly to come...

Still, a wider choice of hardware is no bad thing. Also, with a number of machines vying for our attention, we're likely to see more competitive prices and, dare I say it, improved customer service.

Sadly (in the UK, at least) we seem to live in a world of ever-diminishing customer service. As companies expand and resources are stretched, it's increasingly difficult to reach a company representative who's knowledgeable enough to deal effectively with all but the most obvious of technical problems, or committed enough to even try. Most often when I contact the technical support department of a computer-related company, I either give up after 15 minutes listening to 'Greensleeves' while on hold or finish the call knowing nothing more than I'd already deduced for myself.

I can't count the number of times *Palmtop* readers have contacted us, not knowing where to look for information after being given an inadequate response from Psion. Of course, a magazine can't possibly have the resources to field such general technical support queries, but the problem is that Psion users often don't have adequate

Palmtop is...

Steve Clack - Publishing Editor
Rosemary Rolfe - Distribution Manager
Christian Hayle - Subscriptions
Steve Litchfield - Editor
Pete Sipple - Contributing Editor
Leigh Edwards - Technical Consultant
John Woodthorpe - Senior Contributor
Nigel Wright - Senior Contributor

Thanks... to all the other contributors whose names appear within the magazine. Thanks also to all those who have kindly supplied their products for evaluation.

Cover concept/design - Christian Hayle
Series 5 cartoons - Carl Reader
Printed by The SMS Group

support from the very company that's so happy to take their money in the first place. Psion have a world-beating range of hand-held computers and it's time their after-sales support was brought into line.

Are same-day email responses and realistic telephone hold times too much to ask for when spending hundreds of pounds? We think not.

Steve Clack, September 1999

Newsreel

What's new in the Psion world...

Series 7 released

Following much pressure from the public, a consumer edition of Psion Enterprise Computing's netBook, the Series 7, is about to be released. Due initially for UK distribution (only) at the end of September, the Series 7 will be priced at £699.95 (inc. VAT) and includes a discount voucher for a Psion Dacom Gold Card modem.

The Series 7 features a 100Mhz StrongArm processor, 16MB of RAM (upgradeable to 32MB) and a full colour 640x480 pixel STN display. See our full review on page 23 for more information.



Tantalising Ericsson

Two of the 'extra' applications bundled with Ericsson's MC218, 'My Pocket' and 'Offline Web', have been under the microscope in a big way. Ericsson made updates of both freely available on their web site as a service to new MC218 owners, but was rather taken aback when hordes of Series 5 users turned up at mobile.ericsson.com to download and use their software. After a brief down-time, the software was reposted in a form that only runs on Ericsson's own EPOC palmtop.

The bottom line is that if you need the Ericsson machine's extra software, you'll need to buy the MC218.

Sharp to launch EPOC communicator

According to news reports in Japan, Sharp is to build a wireless PDA using EPOC, for release in Europe early next year. The unit is expected to make early use of the new high speed GPRS (GSM Packet Radio System) networks that are now starting to be deployed across Europe.

The company also apparently intends to build EPOC into its Zaurus PDA platform.

Mobile comms update

Psion has released Mobile Connectivity Update v1.00, a patch for Series 5mx/5mx Pro machines only. It addresses IrDA and SMS issues with GSM data-enabled mobile phones, specifically the Siemens S25, Sagem M8300/RD750 and Bosch GSM908. The update can be downloaded from www.psion.com/downloads/index.html



EPOC comms experts bought out

STNC, the company originally behind EPOC's communications tools (Web and Email), was bought outright by Microsoft in late July. Users of Psion and Symbian products shouldn't be worried though—STNC's projects for EPOC included the supply of all the source code to Psion. Much of the work for EPOC Release 5 was completed 'in-house' at Symbian.

www.microsoft.com

Series 3 downloads

Palmtop BV have announced that all the commercial Series 3 products they ever

developed (including those marketed under Psion's name) are now available to buy and download via the Internet. These include Route Planner (all versions), Money, Expense Tracker, Financial Calculator, Berlitz Phrasebook, Soundmaster, Messenger, Nokia and Ericsson Messenger Express, Telenote and PalmPage.

www.palmtop.nl/products_s3.html

CompanionLink launched

CompanionLink is a new way to synchronise Data, Agenda and To-Do information with a PC. According to New World Technologies, you can transfer a 1000-record ACT! or Outlook database to a Psion Series 5 in under a minute. CompanionLink is claimed to be faster, have more features and support more organisers than any other competing product.

The software is available in two versions: 'Express' and 'Professional', the latter including a Category Manager, which lets you map each category and handheld application separately. For the first time, you can draw data from multiple data files and even multiple applications.

Companion Link supports:

- ▶ ACT! 3.0.7 or above (users with versions 3.0 through 3.0.6 can upgrade for free to 3.0.9)
- ▶ ACT! 4.0, 4.1 and 4.2
- ▶ GoldMine 2.5a 091105 or higher
- ▶ GoldMine 3.0 and 3.2
- ▶ GoldMine 4.0
- ▶ Lotus Organizer 97GS and 4.1
- ▶ MS Outlook 97, 98 and MS Outlook 2000

► MS Schedule+ 7.x

New World Technologies: www.nwt.com
Tel: +1 800 886 4967 (USA)

Password bug solved

Experts at the *Psion Welt* user group in Germany have not only discovered a security bug in the EPOC operating system, but have fixed it as well. A potential intruder can copy files from your internal 'C:' drive on a password protected Series 5, simply by using a modified CF card. In the past, data stored on C has always been considered to be perfectly safe.

Psion Welt have now developed a small application that 'patches' EPOC to fix this potentially serious problem. It works on all Series 5 variants and is available from their web site. Although offered as freeware, they do ask for a small donation to their group to enable them to continue helping Psion and EPOC users around the world.

www.pSIONwelt.net/Security

Handhelds soar

According to a new report by International Data Corp. (IDC), the market for smart handheld devices in Western Europe should grow steadily next year and more than triple from its current size (to 7.2 million) by 2003.

The lion's share of these devices will be in two categories. Firstly, what IDC calls "Smart phones"—mobile phones that can transmit data and graphics as well as voice (probably running Symbian's EPOC). They predict that about 2.9 million smart phones will be shipped in 2003. Secondly, PDAs (including Psion and EPOC palmtops) will account for 3.7 million

units in the same year. The remainder of sales will be of vertical applications devices, used with industry-specific applications, for example doctors who need to remotely access patients' medical records.

www.cnn.com/TECH/computing/9908/19/euro.handhelds.idg/



Sneak peek at Opera

After what seems like an eternity, Opera Software are finally moving the EPOC port of their streamlined web browser into beta testing. On other platforms, the Opera browser has won acclaim from the computing industry for its speed and compact footprint.

www.opera.com

EnFour convert Mac text

EnFour, Inc. have announced a simple Macintosh drag-and-drop utility that pulls the text out of EPOC Word and OPL files, although it does not support EPOC style information or embedded objects. It also converts the carriage return and line-feed characters for plain text files going in both directions.

www.enfour.co.jp/psion/support/download/epoc2mac.hqx

Psion plans MQSeries and DB2 support

Psion Enterprise Computing (formerly Psion Industrial) have announced plans to incorporate and support IBM hardware and software for its new range of Enterprise products due to ship in October (see our CeBIT report in issue 23). Psion Enterprise plans to become the first mobile device manufacturer to provide a new version of IBM's best-selling MQSeries messaging software.



In addition, support is planned for IBM's new DB2 Everywhere database application, enabling Psion users to synchronise mobile data with business-critical information residing on enterprise servers. The two companies also plan to work together to enable the netBook to support IBM's 340MB microdrive hard disk drive.

IBM Pervasive Computing: +1 914 766 3366 (USA)

Psion teams up with LineOne

Psion and LineOne, a leading UK Internet Service Provider, have joined forces to create

'Planet.Psion', a free internet service and information portal designed for Psion users.

Planet.Psion will deliver over two million pages of content in an optimised format, suitable for the Psion Series 5mx and Series 7 screens. This will make accessing information much faster by reducing the use of unnecessary graphics which are prevalent on many web sites designed for PCs.

The service is aimed at Psion handheld computer users and includes content specifically geared to the mobile user, such as the latest news, travel, business, sports and entertainment information provided by LineOne. It will be marketed with Psion computers and users will be able to get

Series 5 Service Release

Since its release on 15th June, we've been taking a closer look at Psion's *Service Pack 1* for the Series 5, as mentioned in the news section of the last issue, available as a free download (over 900K) from www.psimon.com and containing patches to Agenda, Word and Sheet.

We suggest that unless you're currently experiencing trouble with one or more of the (generally obscure) bugs listed below, then you should not load the Service Pack. Note that doing so will overwrite part of Message Suite 1.52 and prevent the very useful System screen patch that lets you view TXT files directly.

Agenda

- ▶ Printing from the Agenda when using MM/DD/YYYY date format now functions correctly. Previously, the date would be omitted.

Sheet

- ▶ Operator precedence now works correctly.
- ▶ Inserting rows/columns will now insert a blank row/column in the correct place when more than one row/column is selected.
- ▶ Concatenation (adding two text strings together with the '&' command) no longer results in a syntax error.

Word

- ▶ Spell-checking a Word file (or embedded Word object) no longer results in an unexpected exit.
- ▶ Receiving text via infrared into a word document now works correctly.
- ▶ Inserting a page break by pressing [Ctrl]+[Enter] will no longer replace highlighted text.
- ▶ Selecting a range of pages to print now results in only those pages being printed.
- ▶ A style with a border and insets applied to a paragraph is no longer adversely affected by inserting bullet points.
- ▶ Print preview now previews a file correctly after changing the margin size.
- ▶ Pressing [Shift]+[Ctrl]+[5] no longer causes Panic CBase 21.



This website was last updated on 8/9/1999

Welcome to PLANET PSION
EPOC portal for the Series 5.

[news](#) [weather](#) [buy books](#) [download](#) [get mobile](#) [links](#)



Search Yahoo! for Psion
Sport - UK Business Finder
US Jobs - UK Jobs
Other Yahoo! Services

Good evening and welcome to Planet Psion.

>> NEWS FROM PSION
www.pSION.com

Psion and IBM provides solution for mobile workers
Enfour supports Hong Kong University EPOC development
Prism Computer Supports Oracle8i Lite For EPOC
Graham Technology and Palmtop announce partnership
Psion technology helps reunite Kosovo Albanians
[Protect your privacy with DATASAFE](#)



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advert

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>> News about SERIES 5 Software

SoundsTrans v1.06
New version of FreeMem from Pascal Nicolas
Updated - SetScreen v1.06
New version of Locker
Information Technologies India Ltd. release GkinPocket
PCalc v1.4 now available
Updated - Trainer v1.45
New: The Dialer
[Manage your shares on your 5mx with Portfolio](#)



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Contact: webmaster@psion.com

Planet.Psion—monochrome only, but fast for Psion users to download

access to the Planet.Psion portal via their Psion and a modem.

Each account also includes five email addresses, plus 10MB of web space.

Registration leaflets will ship with all Psion mobile computers or users can visit the Planet.Psion.com or Psion.com web sites for more details.

www.planet.pSION.com

5mx ROM bug revealed

It seems that a batch of slightly buggy 5mx's have slipped out, especially into the US market. Identifying themselves as "SERIE5mx" rather than "SERIES5mx", this one letter missing from the machine 'Type' is enough to stop the Web application from

starting. Psion have acknowledged the problem and are working on a solution.

Purple Software open R&D centre

Purple Software Limited has opened a dedicated Research and Development Centre in High Wycombe, west of London. The establishment of this new centre was made possible by venture capital raised through Purple Technologies earlier this year. Purple Software will be expanding its range of software titles for devices using EPOC, Palm OS and Windows CE and increasing its custom development of software solutions for other organisations.

The centre has the capacity to accommodate 20 software engineers and is equipped with state-of-the-art development tools. There are still a number of positions available for

candidates who have a good degree in an appropriate discipline or proven software development, and experience of C++ in an MSVC environment.

Purple Software: 020 7387 7777
www.purplesoft.com

RAM localisation

X.Soft s.r.o. have announced the availability of RAM localisation for ER5 EPOC devices for small markets such as the Czech republic.

The usual method of localising machines consists of translating the operating system and applications, developing the keyboard driver and new fonts, etc. and finally manufacturing new ROM chips. To date it has not been cost effective for Psion to undertake this process for potentially small market segments.

www.x-soft.cz/localisation.htm

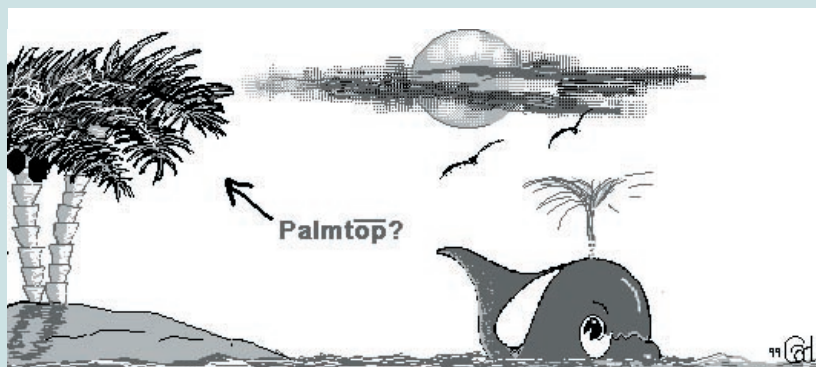
Informal user meeting

The next informal 5Alive UK Psion/EPOC meeting will be held on Wednesday 29th September from 6.30pm onwards in the Cellar Bar at the Pontefract Castle Public House, near Oxford Street in London (accessible from St Christopher's Place, though the pub itself is on Wigmore Street). The meeting is free and everyone is welcome to attend.

If you are able to attend the meeting, either as an enthusiast or developer, please complete an online web form or email stefan@tucows.com if you have Internet access. The web form can be found at 5alive.psionking.com.

Psion ART

Created by Carl Reader using Series 5 SKETCH



INDUSTRY NEWS

In this regular feature we devote a single page to what's happening in the non-EPOC sector of mobile computing...

After a quiet period with regard to hardware releases, Compaq have unveiled a new colour machine. Supported by Windows CE Professional Edition, the Aero 8000 will cost in the region of \$1000. Although too big to be correctly classed as a handheld computer, the device has high specifications and includes a built-in 56k modem. The Aero 8000 is Compaq's first Handheld PC Pro and the first mobile device to offer built-in Smart Card technology.

Compaq has also announced that it is adding new connectivity and display features to the Aero 2100 Palm-size PC. The new Windows CE device boasts revolutionary reflective display technology, the benefits of which are twofold: firstly, the display can be viewed in any light conditions, even direct sunlight, and secondly, battery life is greatly enhanced.

Sales of Hewlett Packard's new colour Jornada 680 have been reported as high since its recent release and it looks set to become a popular device. Unlike many of the Handheld PCs recently unleashed onto the market, the Jornada 680 is one of the few Windows CE devices that can truly be classed as a 'handheld'.

Hewlett Packard has released user-installable upgrade chips to users of the HP620LX and 660LX Handheld PCs. As well as adding several enhancements to the

devices, the new chip includes an updated version of Windows CE. For those who regularly use the word processing features of HP's range of Handheld PCs, an external keyboard has now been made available.

Microsoft has recently announced plans for a wireless communications kit for the Palm-size PC version of the Windows CE operating system, enabling customers to use digital cellular telephones to access e-mail and browse the Internet. However, it is rumoured that the next upgrade to Microsoft's Windows CE platform will not include support for the Bluetooth radio networking technology. Version 3.0 of Windows CE is due for release within the next four months and it appears that Microsoft will have to rely on third parties to ensure Bluetooth compatibility.

3Com Palm Computing has succeeded in obtaining a temporary injunction prohibiting the sale of the DaVinci organiser, claiming that Olivetti copied the Palm operating platform when designing their device.

At the same time, 3Com have launched the Palm IIIe, a low-cost version of the Palm IIIx, with only 2MB of RAM and the O/S in ROM (rather than upgradeable flash memory).

Andy Nott

Shareware Shorts

Steve Litchfield, maintainer of the 3-Lib shareware library, takes a look at the latest additions to the world of Psion shareware...



I am very much aware that of all Shareware Shorts readers, some of the most interested of all are the shareware programmers themselves. Certainly I received plenty of emails after making a small slip-up a few issues ago. With that audience in mind, I've been mulling over a few thoughts on program compatibility and hoping that freeware and shareware authors will take up a challenge.

Future EPOC handheld computers may not necessarily have the same 640 by 240 pixel screen size as the Series 5 and 5mx. We've already seen the Geofox, at 640 by 320, and Psion's Series 7/netBook with 640 by 480. The Oregon Osaris completes the other end of the EPOC scale (at present) at 320 by 200 pixels.

My challenge to authors is to think ahead and make sure that your programs intelligently

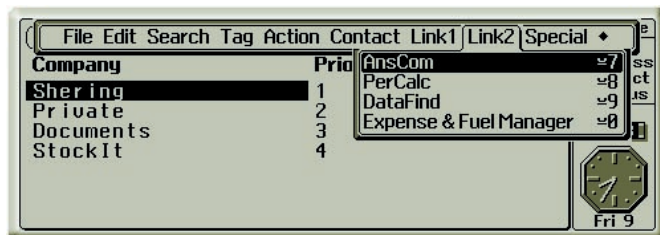
handle this variation in screen sizes. Even if the hard work of writing an application in the first place has been completed, it's usually a simple matter to go through the code with a critical eye, making sure that graphics are auto-scaled, scrollbars resized and menu cards suitably organised, the aim being to feel confident that your application will work well and look good whichever of the EPOC family it's installed on.



Series 3 range

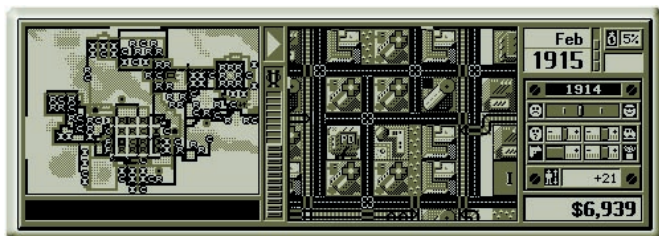
Rumours of the death of the Series 3 software scene have proven to be greatly exaggerated—thankfully. Although the flood of EPOC software has not slowed, there has been a much larger than usual number of SIBO (Series 3 range) applications released in the past few months.

Business Suite may look a bit familiar, being a compilation of **Chris Nicholson's** other



Masses of business-related utilities all under one roof, with Business Suite

**City simulation
comes to the
Series 3 range...**



shareware modules and programs with added bells and whistles. The idea is that it brings all the programs required for business life into a single package. Contact management, stock control, document management, answer-phone control and expense management are all represented within this suite, with the programs sharing some common code, thus leading to major memory savings.

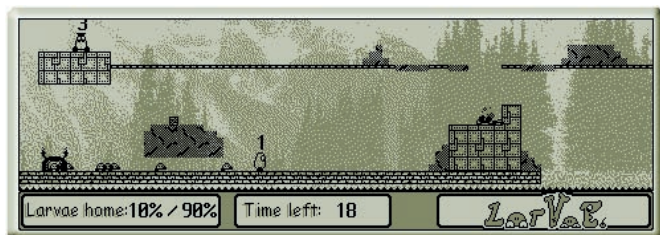
Philip Bister's *CXchange* is a freeware currency calculator to convert from your home currency to a foreign one, displaying up to 10 countries and their respective exchange rates. *CXchange* allows easy editing of entries and exchange rates, and of course it can be used for the new Euro currency.

Psi-clones

Metropolis is a new *SimCity* clone, programmed as shareware for the Series 3 by **Justin Nightingale**. It's based on the classic city simulator idea where you are a mayor who must build and maintain a prosperous city. To do this, you are given

funds and building tools to build a pleasant and flourishing environment for your residents to move into. The skill is to build a city that not only attracts residents (and therefore increase your tax income), but also to maintain it so that residents actually *want* to continue living there. Problems that arise include traffic congestion (too much traffic, too few roads), pollution (too much traffic and industry, and not enough parks) and crime (too many people, not enough police, parks or entertainment).

Jon Stoackley and a cast of thousands are behind another clone, this time of the classic 'Lemmings'. Called *Larvae*, this graphics spectacular is too fast for the humble Series 3a/3c machines, requiring a Series 3mx in order to run. *Lemmings'* biggest attraction was that it offered an almost perfect balance of strategy and arcade action. Each level had to be played in a certain allotted time, making every decision and action a moment of tension. *Larvae* is a clever adaptation of that idea for the small screen. Rather than the creatures possessing special powers themselves, this version



***Larvae—
inspired by
Lemmings***

offers you three human guardians, each with particular combinations of powers. With no touch-screen to call on, the guardians are selected by pressing their 'number' key and then choosing from the list of actions available. The system works well and, thankfully, the clock can be stopped while you ponder exactly what to do next.

But seriously...

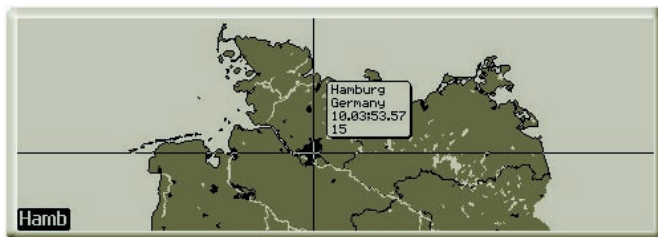
From Finland comes **Juha Hinkula's** free-ware *RegrePsion*, a simple tool for people who need to analyse up to 50 points of data using standard statistical techniques. Functions include standard deviation and variance, $\ln()$, $\log()$, $\exp()$, reciprocals and regression (linear, geometric and exponential fitting, plus correlation coefficients and residuals).

Datamap, shareware from **Peter von Walter**, is a flexible object oriented drawing program for any kind of map which integrates records from standard Data files. It draws graphical objects (pictures, lines, rectangles, circles and text) and displays

data objects (records) according to a special coordinate system overlaid on a chosen map area. Among possible uses for *Datamap* are technical drawings of devices and part items, architectural maps showing building details, and inventory management for a warehouse or depot.

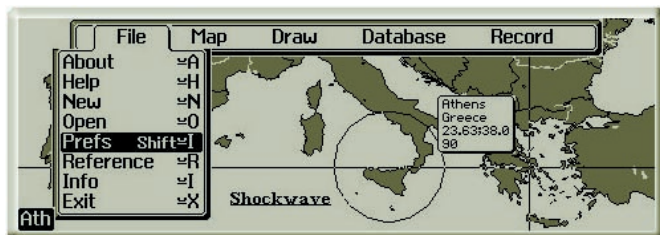
Flexible alarms

Around for quite a while, but newly updated and overdue some coverage in this column is *Alarm Enhancer*, by **Alan Clifford**. Let's say you're working on a spreadsheet and an alarm goes off. Normally, if you snooze the alarm, you cannot continue working. With *Alarm Enhancer*, you press [Esc] to cancel the alarm and are then presented with an extra dialog box. Here, with just one extra keypress, you can reschedule the alarm for five minutes time, for other delay periods, or for a specific time and date. You are then back in your application and can continue working. As if that isn't enough, Psion alarms normally repeat for a considerable length of time if left unattended. *Enhancer's* 'Alarm



Datamap, showing information in northern Germany...

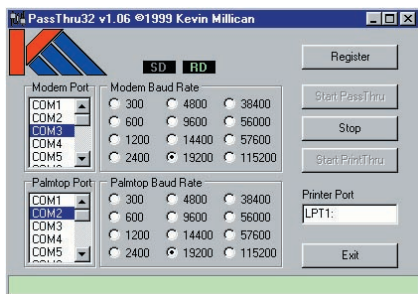
...and southern Europe



Killer' function can be configured to switch off the alarm sounds at a specified interval after an alarm has gone off.

And now for...

Something completely different. Working for all varieties of Psion palmtop, is the shareware *PassThru32*, from **Kevin Millican**. This utility allows you to use a modem and/or printer attached to a friend's PC running Windows 95/98/NT. You effectively 'borrow' these facilities to pick up email or print, with no need for the standard PsiWin connectivity software. Part of the design criteria for this software was that it should be of minimal size and run directly from a floppy disk. The author advises care to check the floppy for viruses regularly or to write-protect it to ensure that it doesn't pick up any.



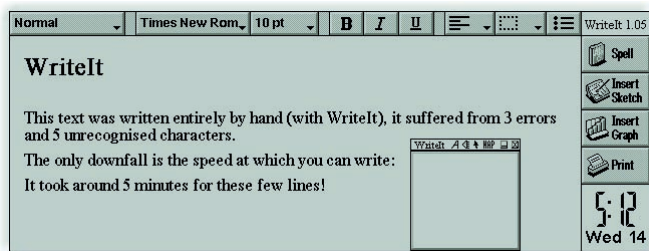
Series 5 range

Regular *Palmtop* readers will remember Purple Software's

Allegro character recognition system for the Series 5, released as commercial software. There's now a shareware alternative that claims to work in the same way, albeit somewhat slower. *Writelt*, by **Patrick Perchang**, accepts pen strokes in predefined (though quite intuitive) strokes within a small input window that 'floats' over the main screen. Letters, numbers and punctuation are all then passed through to the background application.

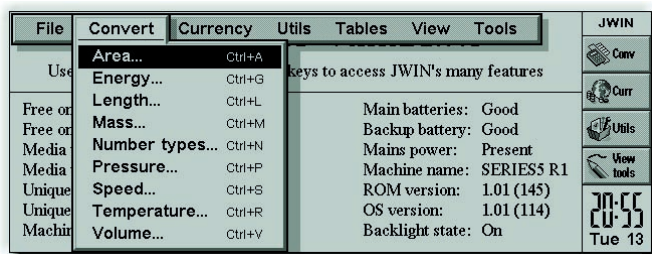
Neuron's *Doodler 3* also relies almost exclusively on stylus input, being a digital version of the traditional paper-based notepad. You can use it to scribble notes, jottings and doodles directly onto the screen. It's more than just a notepad though, allowing you to create, delete and erase doodles, typing text onto them if you so feel the need. You can also paste in clip art and other pictures, interacting with the standard EPOC clipboard.

Staying with **Neuron** shareware, it seems that they're quite keen on games. *TileFall* is a strange mixture between a card solitaire and Tetris. The strategy is to eliminate groups of tiles of the same type, with all other surrounding tiles falling down to close the gaps. Dramatically more points are scored for zapping many tiles simultaneously and it's



Tired of that great Series 5 keyboard? Stunt your text entry speed with Writelt...

**Forever
expanding—
JWIN (Just
What I Need) in
action**



all very playable, with the random nature of the initial tile setup giving the user that "Just one more go and maybe I'll get lucky" feeling. Simple sound effects help the atmosphere along without getting in the way or taking up too much precious disk space.

Chain Reaction is a straightforward puzzler. By placing bombs strategically in certain squares on any one of the many dozens of different board, it's possible to build up combinations of bombs that will explode, showering the surrounding squares with bomb fragments. These fragments may in turn cause other squares to reach 'critical mass' and explode themselves, hence the name of the game. The different levels contain patterns of 'obstructor' blocks, affecting the mathematics of the reactions and therefore your placing strategy. Registered users also get to play with such wonders as teleporters and ice blocks.

Just what you need?

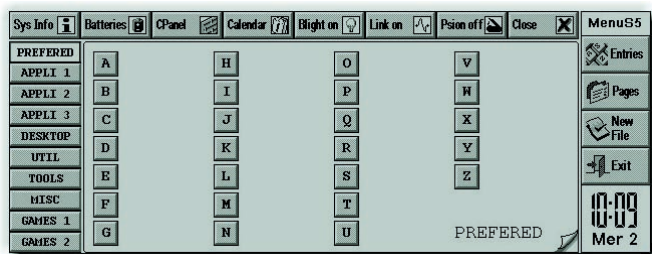
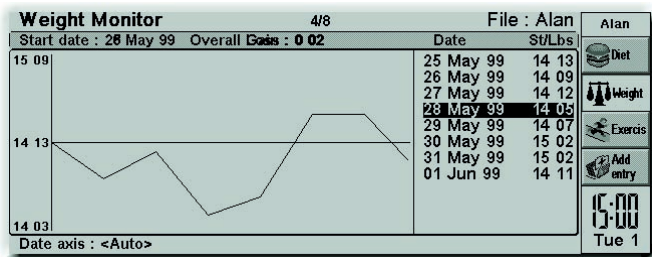
JWIN (Just What I Need), **Phil Spencer's** utility suite opus, continues to expand, with its most unique feature perhaps being that (like most of its **RMR** shareware stablemates) it's available in no less than five languages (English, French, German, Dutch and Italian). *JWIN* includes a wealth of unit conversion calculators and data tables, together with currency support and such additional EPOC specialties as a graphical jot-pad.

Also from **RMR** is a brand new application, *RMRDiet*, a combined diet/weight/exercise tracker, allowing you to keep track of the three important areas in a weight-loss program. Diet and weight screens keep track of your food intake and recorded weight, with graphs and statistics. A special exercise screen similarly allows you to keep track of your workouts: each time you exercise you add an entry by specifying the date, amount of time spent and the type of activity undertaken. Using a database of selected activities,

Diet Tracker				17/17	File : Alan	Alan
Date	Item	Serving	Calories	Total		
30 May 99	Bacon	2	360	360		Diet
30 May 99	Carrots	4	32	392		
31 May 99	Beef	2	120	120		Weight
31 May 99	Almonds	1	160	280		
31 May 99	Asparagus	1	5	285		Exercise
31 May 99	Sausage	1	100	385		
01 Jun 99	Turkey	2	90	90		Add entry
01 Jun 99	Sugar	1	20	110		
01 Jun 99	Sugar	1	20	130		
01 Jun 99	Turkey	1	45	175		
01 Jun 99	Rice	1	100	275		
Total calories		2112	Average intake		422	Calories/day

**Start planning
that diet NOW,
with RMRDiet!**

*Lose a pound,
gain a pound.
RMRDiet
tracking of
your weight
graphically*



*Assign hot-key
strokes to your
260 (!) most-
used programs
and documents
with MenuS5*

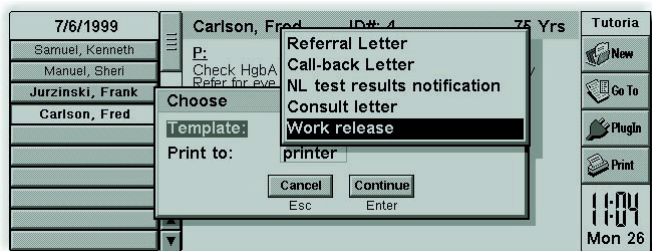
the program will then calculate the calories you have burnt up.

Not an original idea, but **Henri Spagnolo's** MenuS5 allows you to set up 260 hot-keys (in 10 categories) to run your favourite applications or documents. Organised in this way, your programs are easily accessible, with no more need to search the Extras bar. New to the latest shareware version 1.2 are a file manager, links to folders and improved setup speed.

Medical matters

ChartNote, by **Kimo Hirayama**, is a simple patient record system that allows quick entry of clinic notes. These can then be printed out for entry in the patient's chart. Even if you normally dictate your notes, ChartNote may still be useful to keep track of age and sex breakdown of clients in your practice, log and track procedures, or to keep basic patient information such as medications, problem lists, contact information and referrals at your fingertips when you are on the go. Chart-Note allows free-form entry of clinic notes in standard SOAP format, but its true power

*ChartNote. A
Doctor's aid for
the Series 5*





*Integrated
contact
management
from
PalmScape,
with CM*

lies in the ability to use customisable plug-in scripts that allow even quicker pen input of notes which can be easily created using Data.

The freeware *PIP* (Patient Information Program), by **Jason Penfold**, is designed to temporarily store patient information while on call. It is mainly designed for GPs, but can also be used for ward work. It includes a utility to manage a database of the drugs in your possession, adding them to a patient's record and telling you which ones you need to reorder. There are also databases of common haematology and biochemistry values, plus some medical calculators.

Information managers

Yet another variation on the 'Task manager' theme, **John Whiting's** *Lifeplan* is designed to be as flexible as possible, with any combination of notes, outlines, times and tasks. Each task can have start, due and completed

dates and can be linked through to other applications. Uniquely, you can define your own view layouts. Look out for a full review in the near future.

Especially useful for Series 5 (pre-'mx') owners, **PalmScape's** *Contact Manager* (CM) is an intelligent shell for the built-in EPOC applications, including Message Suite. It allows you to manage your interaction with business and personal contacts, linking to the most appropriate program at each point. Duplicating many of the features of the 5mx's Contacts, CM allows attached notes, hyperlinks to Email and Web and a search facility. Unlike Contacts, it can also find and display any entries in Agenda containing a contact's name and/or any emails in Message Suite containing the contact's email address. Appointments can be made with a contact and written directly to Agenda. Finally, CM can handle mailing lists and allows the import of existing Psion Data files.

Shareware availability

Please note that, by definition, many of the latest items featured in Shareware Shorts will *not* appear on existing Palmtop CDs, but on subsequent pressings of the disk.

For those with Internet access, an easy way to find software is to go to our

'Programmer directory' at www.palmtop.co.uk/authors.htm and look up the name of the author as highlighted in **bold** in this article. This will take you to the author's web site, from where you can find out more about the product and download it directly.

What is shareware?

Written by professional programmers and enthusiasts to meet specific (and sometimes unusual) needs, shareware is often supplied for use on a thirty day trial basis. If you like the software you are then asked to send a payment to the author. Some programs are freeware and don't require any payment at all. Each program comes complete with information about how to install and use it, and how to pay for it.

Where can I find it?

One way to get any of these programs is from the Internet. If you've got access to the web there are several on-line indices which link directly to the relevant author download page concerned. Most mainstream programs (excluding games and small utilities) appear in the comprehensive Palmtop Software Directory on our web site. This is an online listing with each entry having a hyperlink directly to the program author.

Things are actually even easier if you haven't got Internet access. As long as the program concerned has been out for a month or so, you should find a copy on the latest edition of the Palmtop CD-ROM, indexed into the appropriate category.

How do I use it?

Once you've found the file you want, there are three steps you may need to take:

1. Decompress the files if necessary. If you're new to computers you may not be familiar with compression. Psion applications normally have more than one component (e.g. the program itself, help files and pictures). These are normally compressed into one file, which makes them easier to distribute. Shareware on the Internet is most commonly compressed in 'Zip' format, and you can recognise these by the '.ZIP' at the end of the filename. Before you can install and run the program you need to extract these files with an 'unzip' program, which is freely available from your shareware supplier. If you use DOS, look for PKUNZIP, Windows users can use Winzip, and Mac users should try Ziplt or the commercial Stuffit Deluxe. You can also unzip files on your Psion without using another computer, using either PsiZip (Series 3, Siena and Series 5) or RMRZip for the Series 5.
2. Copy the files. You'll probably now need to transfer the unzipped files onto your Psion. To do this you'll need some external hardware, such as the PsiWin or EPOC Connect link cable or a Cyclone drive. Normally one of the unzipped software files is a text file (e.g. README.TXT), which can be read by any word processor. It explains how the program should be installed and where the files need to be copied to on your Psion. Series 5 owners should also look out for any special SIS files, which can be double-clicked on for really easy installation.

See 'The Installation Game' in issues 14/15 and 'Installing software - the easy way' in issue 21 for a more comprehensive discussion of the above procedures.
3. Install the application. From your Series 3 or Siena System screen, select [Psion]-[I]. If the program was copied correctly the filename should appear in the list. Select it, press [Enter], and the icon should be installed, ready to run. Series 5 users don't need to do this as the newly installed program will automatically appear on the Extras bar.



Contribute and WIN PRIZES!
The Star Letter in each issue
wins the author a FREE copy
of STREET PLANNER or other
Psion goodies from our special
collection. Prizes are valued at
up to £70 each!

Castrating the Series 3

Why would Psion sell the Series 3mx, then proceed to castrate it by withdrawing their PsiMail Internet software from circulation? 10 years ago this wouldn't have been a problem, but today, with the whole world (so it seems) trying to get connected to the 'Net, it looks like madness.

If they've withdrawn it as a retail product due to slow sales then I can understand this, but if so then why on earth can't they make it freely available as they have done with Message Suite for the Series 5 range? I guess they're concerned that it would cost money to handle the technical support calls associated with the software, but this is hardly a positive approach, is it?

Come on Psion—we Series 3 users need Internet access too!

Stan Rubler
Arlington, Virginia, USA

We agree one hundred percent Stan. It's obvious that Psion are now promoting the Series 3 as an 'organiser' and focussing all future efforts on EPOC (Series 5 compatible) machines. Their recent withdrawal of PsiMail Internet from the market is a snub to Series 3 users who (quite rightly) view their machine as a powerful and effective stand-alone computer. The Series 3/PsiMail Internet combination is perfectly adequate for modest email requirements, all in a small and convenient package.

It must be said that this kind of action all points to the imminent demise of the Series 3 from Psion's viewpoint. In most areas of computing the withdrawal of such 'old' technology wouldn't be in the least bit lamented, but in the case of the Series 3 the machines appear neither old nor outdated, despite their advancing years - Ed.

See also Q&A on page 103.

Star Letter



Psion desktop computers?

Has the possibility of a Psion desktop operating system ever been discussed, complete with a full suite of office applications? I for one would jump for joy if I could trash all the software I use on my PC and replace it with a simple, stable and easy-to-use system. We could even go back to sub-100MB hard disks once again!

*Leith McIntosh
Coromandel, NEW ZEALAND*

For general office tasks there's a lot in favour of such a machine. Psion's now-defunct MC400 laptop machine (see our 'A brief history of Psion' article in issue 20) gave the benefit of a full-sized keyboard and screen, with Series 3-like software applications. The new Series 7 is the nearest thing for now, with a touch-typeable keyboard and full-sized colour screen. It's a harsh fact that the largely crash-free environment enjoyed by Psion users is something desktop users can only dream of - Ed.

Printing—what printing?

I don't often knock Psion, as I have been using their products since the early Organiser II days and have always been impressed with these innovative machines. I have been using a Series 5 for the last two years and although at first I was a little disappointed with some of the quirky omissions from its applications, I soon learned to get along despite them. Anyhow, the superior feel and usability of the machine soon overcame its shortcomings. With the 5mx I am not prepared to be so understanding. Four weeks ago I purchased a 5mx. Today I returned it, and I'm very disgruntled. I use my Psion for my everyday work. As a manager in contract catering I have to use spreadsheets extensively

to send weekly data to my area manager for compiling onto his central records. He is impressed with what I send, as it is all typed from the Sheet application, complete with attractive column shading and so on.

When trying this with the 5mx the outcome was a complete disaster—shaded columns would not print as shaded if there were characters in the cells. Some of the print gave the appearance that I was running out of ink, and some of the horizontal lines were going off on a tangent—all using the same printer as used with the Series 5, with all the same settings relevant to printing via a parallel cable. To be fair, Psion Technical Support have noted the problem, but cannot give any timeframe for a fix. As a layman, it appears to me that the print drivers have been rushed together without a thorough testing.

Psion have taken two years to bring out this updated machine, and to my mind they have failed miserably in the printing compatibility department. So it's back to work after my holidays with the old Series 5 and I'll have to wait *another* two years before they bring out something better. I haven't enjoyed writing this to you, but the more people who know about this problem the more likely it is that someone in Psion will get the impetus to solve the problem as soon as possible.

*Reg Browne
Darlington, County Durham*

Send 'em in!

Don't forget that you can submit your letters by normal mail to the address given on page 1, or alternatively by email to editor@palmtop.co.uk. Please mark emails as "Mailbox entry".

A Closer Look...



*...at some of the
newest and most
interesting products
available for your
Series 3
or Series 5*

Star Ratings:

- ★★★★★ Excellent
- ★★★★☆ Good
- ★★★☆☆ Average
- ★★★☆☆ Fair
- ★☆☆☆☆ Poor
- ☆☆☆☆☆ Dismal

Interpreting reviews

Quality: the Quality star rating reflects how well the product works, whether it includes all the features you'd expect, whether the interface is consistent and easy to use, and in data-based products it also reflects the quality of the information contained in the program.

Value: the Value star rating reflects the value for money of the product, taken within the context of what the program (or other product) does. Therefore a simple utility program will be rated differently to a sophisticated application at the same price.

Series 7

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Pegasus II modem

Page 38

MindTools

Page 39

Mentor

Page 42

No Man's Land

Page 45

Series 7

As soon as Psion Enterprise's vertical market netBook was announced at CeBIT back in March, we've received lots of correspondence from readers asking whether it was likely to become available as a consumer machine. It seems that Psion received a proportionate number of similar calls over that period too, as they've finally bowed to pressure and done almost exactly that.

Desirable as the Series 7 is, it's important to note first and foremost that it's *not* a palmtop computer. At 235x182x37mm in size and around 1150g (just over 2lb) in weight, it's neither pocket-sized nor discreet to carry. So given this in-between size that is neither laptop nor palmtop, who's it aimed at?

The truth is that, being the first of its kind, only time will tell whether there is an adequate market for a consumer device of these proportions. In its favour, there are few reasons why many people should choose either a laptop or palmtop computer in preference to a Series 7. It offers many of the benefits of both, all in a single, solid package.

What's different?

Apart from the obvious size considerations, the Series 7 effectively runs the full suite of (ER5) Series 5mx applications. The 100MHz StrongArm SA-1100 processor (as opposed to the 190Mhz version in the netBook) offers more pure horsepower than the 5mx, though in practice most benchmark tests (see page



31) show similar performance between the two machines, with the Series 5mx sometimes having the edge over the Series 7.

The internal memory of the '7' is 16MB as standard, upgradeable by a dealer or service centre to 32MB using a single add-on module which slots into one of the memory bays on top of the main body of the unit (hidden normally by the bottom of the screen). By comparison, the netBook offers 32MB as standard, upgradeable to 64MB.

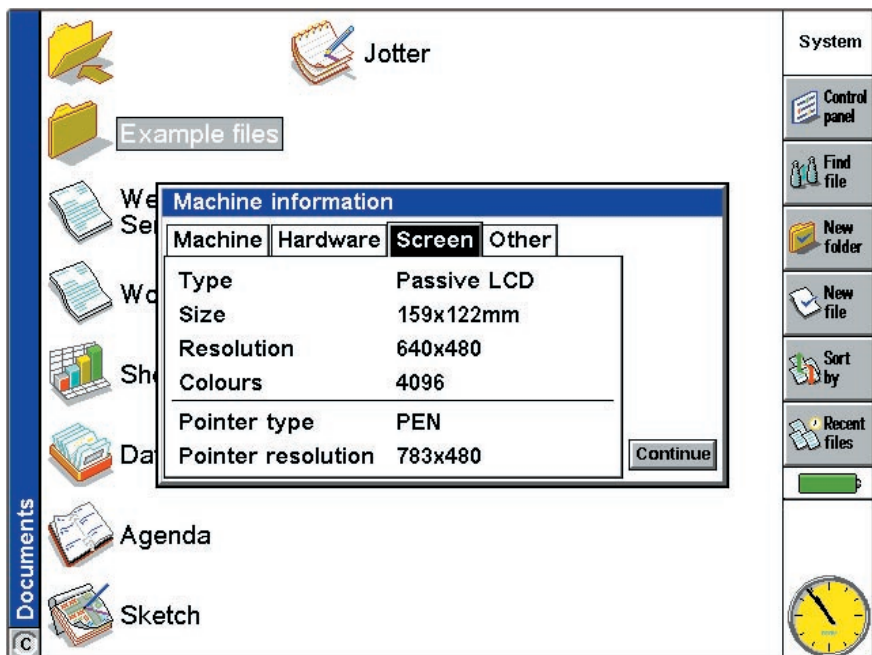
New batteries...

Laptop computers generally offer a maximum of 2-4 hours of operation between battery

charges, making it impossible to work for a full day while away from mains power unless you're prepared to carry around additional power packs. The Series 7 offers at least 8.5 hours of *real-world* battery life, with Psion hoping to expand this to a full 10 hours by the time the machines are in full production. If you travel a lot and plan to use your Series 7 while in transit then this is a fabulous feature, allowing a full day's work to be carried out on long haul flights or train journeys.

Mainly because of the battery demands of the colour screen, a new (for Psion) battery philosophy was needed. In use the Series 7 consumes more than three times the amount of power that conventional AA batteries can





The Series 7 System screen—nothing unfamiliar to Series 5 users

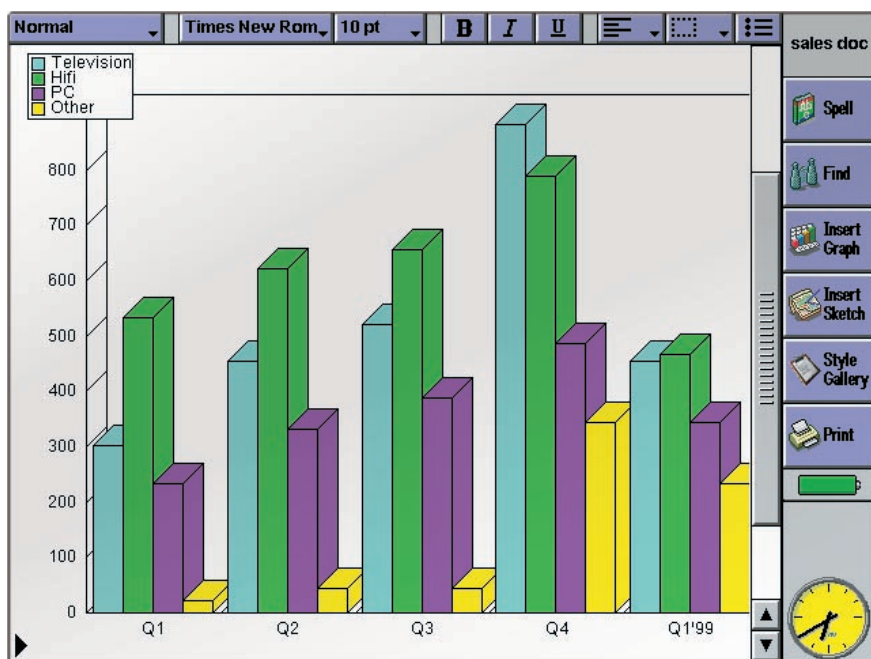
provide, so it was necessary to use a full width sealed Lithium-Ion pack instead. This is easily removed by pressing a small catch on the side of the machine, and it will be possible to buy extra packs if you need to operate for tens of hours without access to mains power. The batteries are rechargeable in-situ in under three hours using either the supplied plug-in mains adaptor or optional docking station.

The CR2032 backup battery is identical to that on the Series 5 and 5mx, and is housed on the underneath of the unit, behind a small flap.

Super screen

Operating any computer for long periods can be hard on the eyes, particularly the Series 5 machines, with their relatively poor contrast and highly reflective screens. The Series 7 screen width in pixels is the same as the Series 5, but twice as deep, at a capacious 640x480 (the original VGA standard for PCs). The pixels themselves are also larger than on the Series 5, giving a screen diagonal size of 7.7 inches (196mm). The extra screen size and depth make it more comfortable to use the Series 7 for long periods, but it is the full colour of this STN display that gives the machine much of its appeal.

As with other displays of this type, the backlight is effectively on at all times, making the screen bright and easy to read in all but



Multi-coloured graphs at your fingertips

Solid and robust

Even after just a few seconds of handling, the Series 7 gives an impression of quality and solidity. The grey plastic casing is complemented by an attractive embossed blue leather wrap-around (the one on the almost-identical netBook is black) that serves to hide the back of the hinge mechanism and the screen cable. Pressing the opening catch reveals a cleverly double-jointed mechanism that looks designed to last. This design also makes it possible to set the screen to any angle relative to the keyboard—and it stays there.

Being built by Psion Enterprise, makers of the industrial-strength Workabout and HC ranges, the Series 7 has considerably superior robustness to previous Psion Computers palmtops, including a specification sheet that says it can withstand a drop from one metre onto a wooden surface. This kind of durability is far beyond what anyone would expect of a conventional laptop computer and may turn out to be a valuable selling point in Psion's favour.

Touch typing

Sexy screen apart, the most important feature of any workhorse computer is its keyboard, and the Series 7's is quite excellent. Being large enough to touch type on and with plenty of key travel (each one is individually sprung), it's quite feasible to use this machine for long reports and essays without undue fatigue. Although the [Tab] key is rather small, the [Delete/backspace] and [Return/Enter] keys are both suitably oversized and all the 84 keys are thankfully in a conventional desktop layout, with the familiar 'inverted T' cursor arrangement at the bottom right.

There's no dedicated numeric pad, but an 'embedded' pad is conveniently accessible for those needing to do large amounts of numeric entry.

CF and PC card support

For maximum flexibility, the Series 7 has both a type1/type2 CompactFlash slot and a PC card slot (for modems, etc. or for additional storage). All standard Series 5-style CF disks will work in the Series 7, and Psion are





Some highly decorative clip-art in the Series 7 Sketch application

currently working with IBM to also support their 5mm thick 340MB 'micro drive' disks that fit into this type 2 slot.

The CF slot foregoes the pivoting Series 5 door arrangement in favour of a slide-out tray on the left hand side of the machine. Anything in the PC card slot is popped out by swivelling and pressing a special eject button.

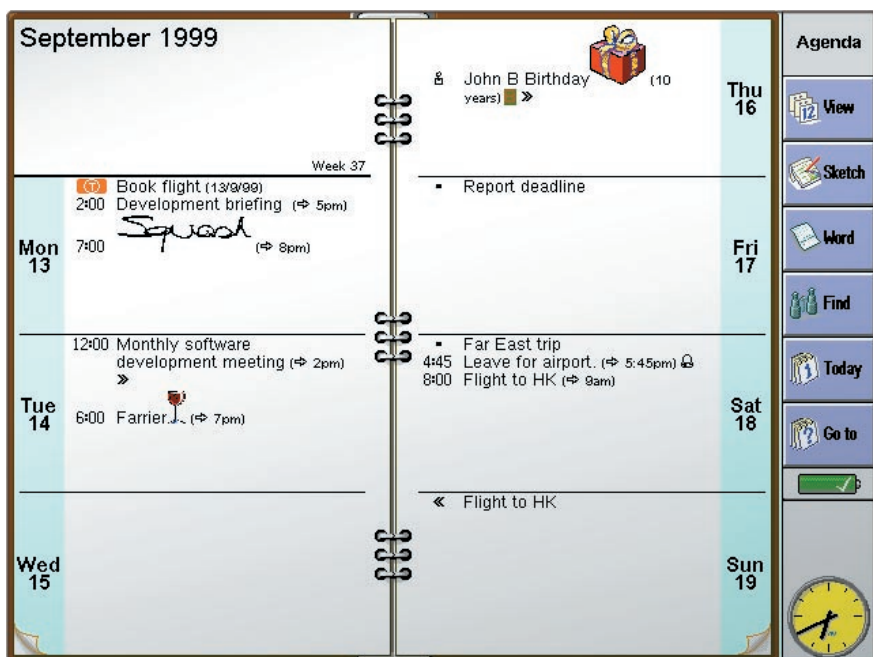
Whereas the netBook offers optional Ethernet network support via its PC card slot, the Series 7 is currently only compatible with Psion's own Dacom Gold Card modems and the usual PC card storage devices. This compatibility is likely to be expanded in the near future, at least to cover non-Psion modems.

The lack of a built-in modem is partially offset by Psion's out-of-the-box inclusion of a discount voucher for a Dacom 56k PC card modem at £119 inc. VAT.

If you prefer a wireless connection, the Series 7 supports the full IrDA (version 1.1) standard, including a 'fast mode' (FIR) for 4Mbit/second transfer.

Docking station

The primary Series 7 RS232 serial port is identical to that on the Series 5, but there's also a functional duplicate built into the docking station socket on the underside of the casing.



Almost as big as a 'real' diary!

The optional docking station (unavailable for evaluation at the time of going to press) will give simultaneous PC connection and mains power when attached, something that's achieved by simply lowering the machine onto the station. If you don't purchase the docking station then mains power is connected via the supplied adaptor and a standard circular socket on the side of the machine.

Software

If you're puzzled why so little mention has been made of the Series 7 software in this review, it's because there's very little to report to existing Psion owners. All of the Series 5mx's new applications are present, including Contacts, Jotter, the full Internet suite and Java support.

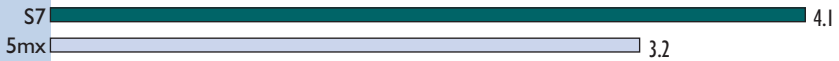
In terms of add-on software compatibility, many commercial and shareware applications should run without problems, though only professionally-written ones will initially run full-screen without modification. Again, we hope to report further on this aspect of real-life use in the next issue of *Palmtop*.

Quite aside from the excellent screen and keyboard quality, it's a real pleasure to use all the familiar Series 5mx applications on such a large display. Imagine having two Series 5 screens stacked one above the other, and think of how many spreadsheet cells, text lines or Agenda entries that might translate to. Regardless of whether you intend to purchase a Series 7, moving back to the Series 5's dull and comparatively small screen after trying out the newcomer is somewhat

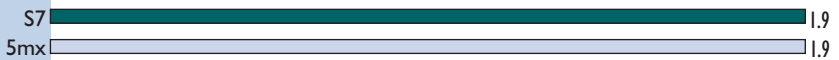
Series 7 benchmark tests

- All comparisons with 1.05 ROM (ER5) Series 5mx
- All times in seconds, shorter bars are better

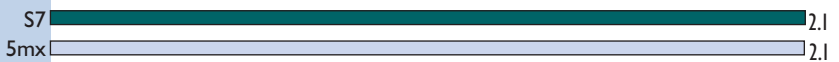
Open a 10,000 record Data file in internal RAM



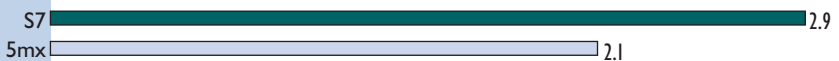
Search a 10,000 record Data file in internal RAM



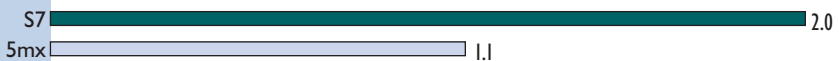
Sort a 10,000 record Data file in internal RAM



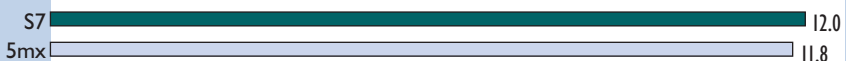
Open a 1.5MB Data file on CF disk



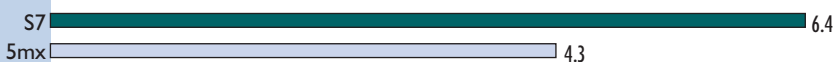
Search a 1.5MB Data file on CF disk



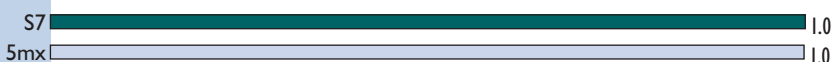
Sort a 1.5MB Data file on CF disk



Open a 240K Word file



Search a 240K Word file



painful, and may entice prospective buyers to accept the extra cost and bulk of the machine in favour of all its benefits.

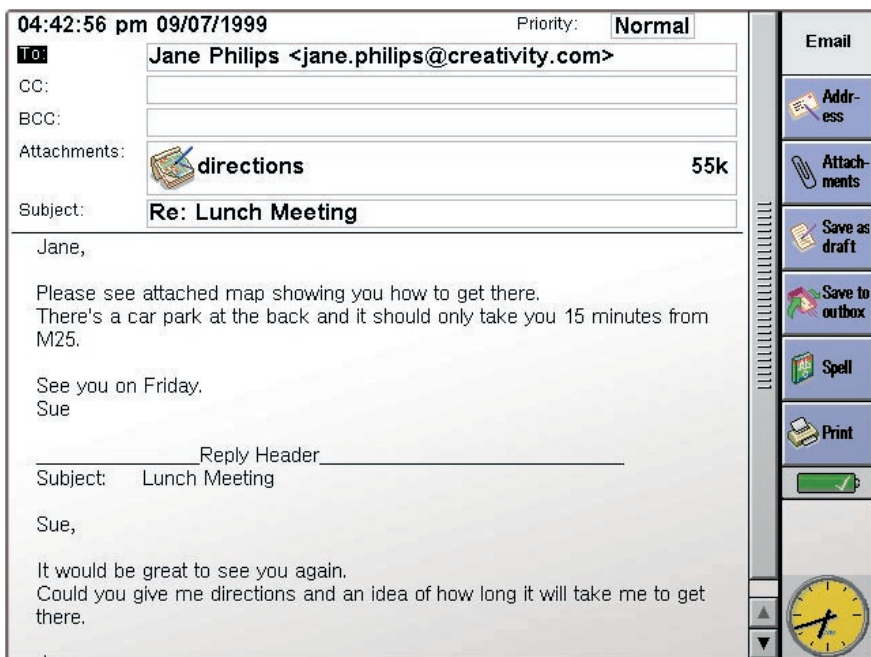
Conclusions

After being bitten so badly by the failure of the MC laptop range back in 1991 (see also 'A brief history of Psion' in issue 20), it's something of a surprise to see Psion making a second foray with anything larger than a palmtop-sized machine. The MC-range suffered from being non-PC compatible but with a PC-equivalent price—a tack which seemed to confuse prospective buyers. The Series 7 has a relatively familiar operating system, a significant price advantage and many unique selling points, all of which

should hopefully ensure it doesn't meet the same fate.

Notwithstanding the PC-compatibility of PsiWin, the Series 7 is neither a 'real' PC (in itself not necessarily a bad thing), nor indeed 100% document-compatible. Given the stigma attached to this by some, many of those for whom the Series 7 is most suited may sadly dismiss it out of hand.

Ignoring the preconceptions of the "must be a PC" brigade though, its specifications show an immensely capable (and desirable) machine. A full suite of business software, pre-loaded in ROM onto a fast, instant-on colour computer that runs for a full working day without connecting to a mains socket, all in a package that's both physically robust and



Take advantage of the Series 7's big screen for easy emailing



EPOC Release 5

© Copyright Symbian Ltd 1997-1999

Version 1.05(254) - English (UK) - ASCII (Build 735)

Worldwide patents pending

Coming soon...

which sports a relatively bomb-proof operating system. The last point will be particularly important to any laptop computer user who has been caught far from home with a corrupt application that needs to be restored from a program CD they'd left at home. Or perhaps to a business traveller whose laptop refuses to deliver that important proposal or presentation because it was damaged by falling out of their briefcase at the airport.

On size alone, the Series 7 falls into something of a 'no man's land', being neither a true palmtop nor a laptop, but it doesn't deserve to fail on this basis. When forced to tote a computer with any regularity the compromise is always between usability and portability. The Series 7 scores heavily by having a screen that's usable for long periods without

causing eye strain, a keyboard that can be used comfortably for real touch-typing, and a form factor that allows it to be carried in one hand like a clutch bag.

The mobile computer market will be watching the progress of this ground-breaking design with a keen eye. If prospective laptop buyers can see past its lack of Microsoft Windows 98 to its numerous real benefits, then the Psion Series 7 could sell exceedingly well in the wider world. Many palmtop users too, from both Psion and Windows CE camps, will also eye up the '7' jealously.

From the viewpoint of quality the Series 7 is virtually beyond criticism and is an extremely desirable (and powerful) computer. As a

Series 7

From: Major Psion dealers

Availability: From the end of September, initially in the UK only

Price: £699.95 for 16MB machine, including discount voucher for Psion Dacom 56k modem. Add-on prices TBA.

Quality ★★★★★

Value ★★★★★

journalist's or business traveller's tool it is a winning combination.

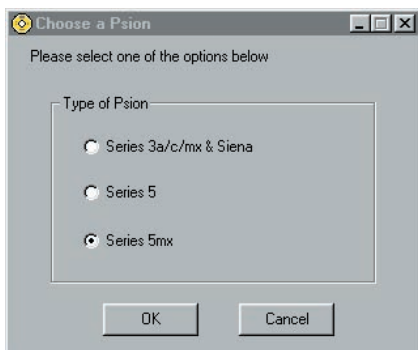
Steve Clack



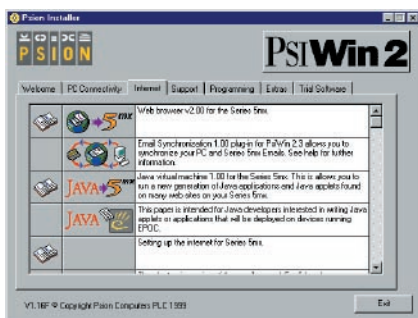
PsiWin 2.3

The last major release of Psion's PC connectivity software was almost a year ago (covered in issue 20), when the arrival of the Series 3mx was accompanied by PsiWin 2.2. This latest version (also known as 'EPOC Connect 5') builds on version 2.2, making subtle improvements and adding support for the new features in the latest generation of EPOC machines. The key components of backup, file transfer and conversion have changed little, although the Data-to-Access convertor appears to be more robust.

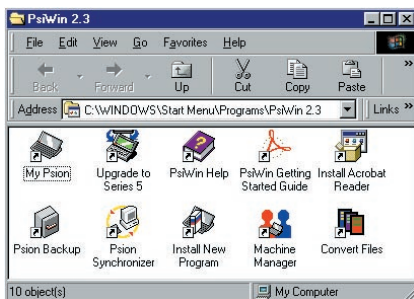
Despite being packed with extra goodies, the CD is made more accessible by a brand new interface that gives quick and clear access to



Selecting your machine...



The new-look installation screen

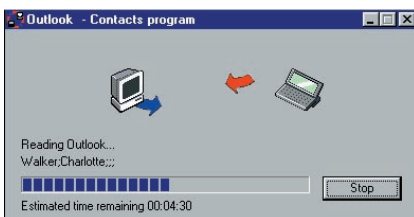


Installed and ready to go

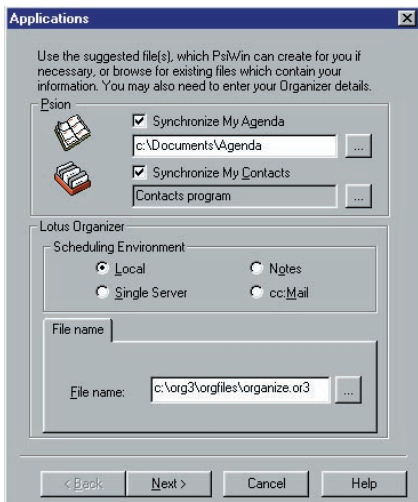
its contents. Various 'how to' and instruction manuals can now be accessed with a single click of your mouse.

The introduction of the new Contacts application in the ER5 (Series 5mx and Ericsson) machines finally makes it easy to keep your PC's contact manager and your Psion in perfect synchronisation, although at around three minutes to synchronise 900 contacts when only one of them has been changed, it's tediously slow. See the articles on synchronising and 5-5mx upgrading elsewhere in this issue for a more detailed discussion of this process.

The ability to synchronise emails between PC and Psion computers has been a while coming, but is it worth the wait? The PalmPilot and Windows CE families of PDAs have been able to synchronise to desktop email packages for a while now, but it has only been possible to do this on your Psion via



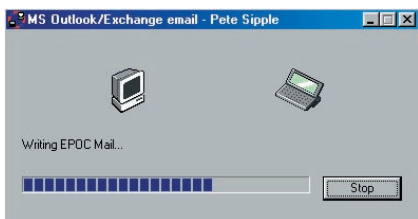
Synching Contacts with Outlook



Setting up Contacts to Lotus



Setting up email synchron



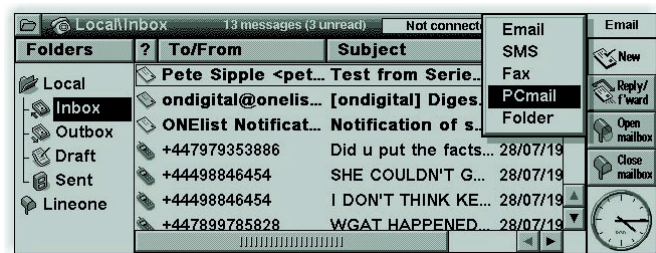
Mail synch in progress...

After composing a message on the Psion, you have the choice to send it immediately (e.g. via a GSM mobile phone) or save it as a *PCMail* to be sent later, when connected and synchronised to a PC. There is thankfully an option to convert a *PCMail* to a standard 'immediate' email, should you change your mind and want to get your mail through before you return to the office.

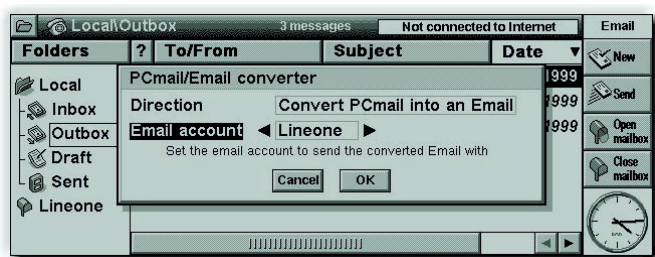
third party 'plug-ins'. With PsiWin 2.3 and an ER5 machine, you can now read and write emails while on the move, transferring them (together with any attachments) to a PC when back at your desk.

At present, PsiWin 2.3 will allow email synchronisation with the following:

- ▶ Lotus cc:Mail client version 6 or later, using a cc:Mail 8 Post office or later.



Creating a PCCMail within the Series5/5mx email software



Converting a PMail item to allow direct emailing

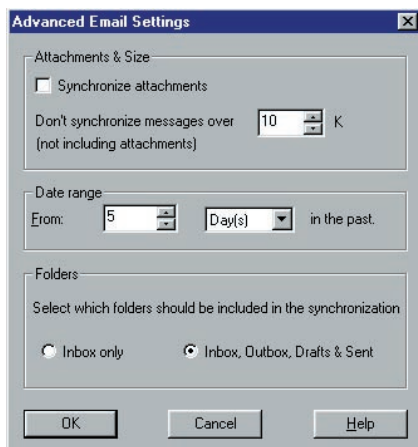
- ▶ Microsoft Outlook 97/98 (but *not* Outlook Express). You cannot synchronise with Outlook if it is used in conjunction with an IMAP4 (Internet Mail Access Protocol) mail server.
- ▶ Other MAPI-enabled packages (using PsiWin's 'Outlook/Exchange' settings).

To set up email synchronisation, you need to set up a new task via Psion Synchroniser (in the same way as mentioned in the article on page 56) You can include your 'Inbox', 'Outbox', 'Draft' and 'Sent' folders, or just the 'Inbox', but you cannot synchronise emails that are in custom folders on the PC. If you use Outlook to retrieve mail from several

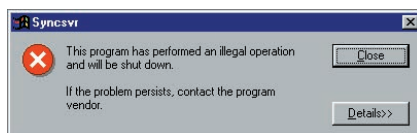
different email accounts, all of these will be included together in the synchronisation.

In the course of this review I had several problems getting my mail to synchronise. At first I thought this was because I was using the latest version of Outlook (2000) on my machine at work, but I then had the same problems at home with Outlook 98. Mail would sometimes copy and sometimes not. The databases would open and then a 'Sync complete' message would appear even though nothing had happened. On some occasions and for no good reason, the transfer would terminate without copying all the messages. From reading feedback on the Internet, it seems I'm not alone—these exact problems have been experienced by others, along with a batch of new ones, including transfer in one direction only, complete failures to synchronise, and even PC lock-ups. It's clear that all is not well with this part of PsiWin, and I'm eagerly awaiting a fixed version from Psion.

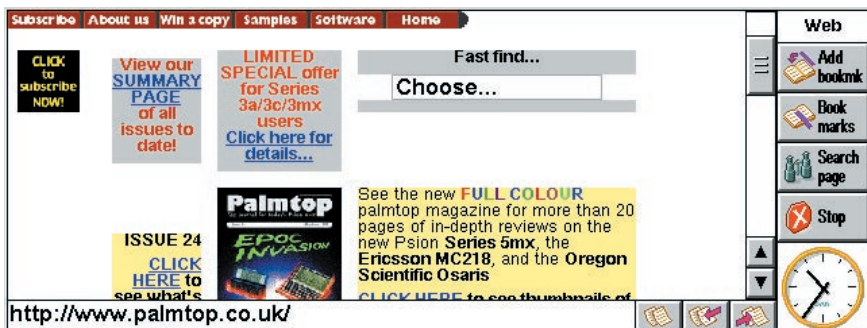
In the past I've also had my share of problems with Agenda synchronising via PsiWin, and (again) looking on the 'net I'm not alone.



Choosing your email options



PsiWin, we have a problem...



Web on the 5mx—even better with Symbian's Emulator

There were reportedly a lot of problems with PsiWin 2.2 that have been addressed in version 2.3, and indeed things do seem to be somewhat better now. The synchronisation process is a little faster, and in my case no longer produces duplicate entries. However, when synchronising with Outlook 98 everything seems to copy perfectly from PC to Series 5mx, but not the other way around. Events, To do's and Anniversaries copy without problem, but not Day entries—no matter what I try. Others have reported similar problems, together with a possible fix. This involves creating a new folder within Outlook, copying over all diary entries into the new folder, deleting the original entries and then re-importing the copied entries from the new folder. A tedious process and one that really shouldn't be necessary, but it seems to cure the problem.

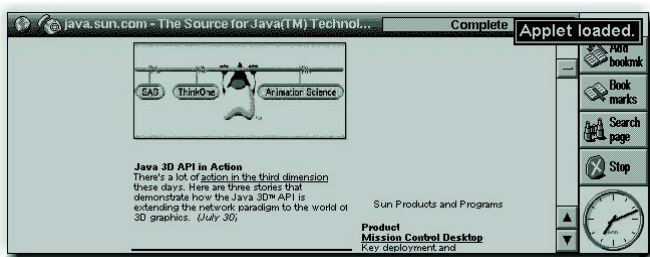
As reported in the last issue, the Series 5mx Web application supplied on the PsiWin CD has been enhanced significantly, with support for frames and Java applets. There are still some unsupported formats and a good few sites that can't be accessed at all, but the situation's getting better. Sadly, neither JavaScript nor Secure Sockets Layer (SSL) are supported, preventing Internet banking or secure shopping from your Psion.

The Java 'engine' (Java Virtual Machine) for EPOC is also supplied on the CD. Installation requires 2.9MB of disk space and a whopping 5.7MB of memory when actually running. Once installed however, you can run Java applets embedded in web pages, as well as Java applications that run on the EPOC platform. (If you're not up to speed on Java, see our 'Java!' article on page 65)

For the technically-minded, note that applications that are not packaged (i.e. with an Extras bar launcher icon) for the Psion can still be run, provided they are compliant with Java 1.1 and that they can operate within the memory and processor resources available on the palmtop. The Series 5mx Java implementation is a true Java 1.1 run time environment, based on the Sun 1.1.4 Java

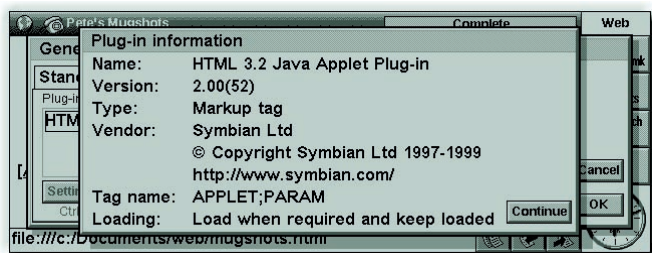


Installing Java on your machine



Running a Java applet on the Sun web site

The Java engine



Development Kit. A specific Java Development Kit for EPOC is freely available to programmers at www.epocworld.com.

There are several more extras included on the PsiWin CD. These include demo versions of the Advansys Act!, Groupwise and Outlook plug-ins, On-board Info's Diary Companion, Flight Manager, Enigma, Powerbase, Navigator, Chess and Backgammon. There are also several manuals in Adobe Acrobat (PDF) and HTML format, covering OPL/32 programming, the Comms application, setting up synchronisation and configuring email on your Psion palmtop.

Upgraders should note that PsiWin 2.3 requires Windows 95/98/NT and a minimum of 30MB of your hard disk.

Pete Sipple

PsiWin 2.3

From: All Psion dealers

Availability: now, as supplied with Series 5mx, or September onwards for stand-alone product (major European languages)

Runs on: Series 3/5/7 and compatibles

Price: free with 5mx/S7, stand-alone TBA

Quality ★★★★★

n/a (FREE with 5mx)

Pegasus II modem

This 56k, v90 modem is being marketed as the “World’s smallest external modem”, and at just 105x69x24mm and 140g it’s compact, light, and ideal for the palmtop user. I successfully tested it with both Series 3 and Series 5 machines, without hitting any problems.

As standard, the unit is mains powered, but it will also work with an optional battery pack. It comes with a special cable that connects directly into the Psion’s RS232 (serial) port, removing the need for a null modem adaptor.

For the technically-minded, the Pegasus II uses a kFlex/V90 Rockwell chipset, has a maximum throughput of 115kbps per second, supports all standards up to V.42bis, and can send and receive faxes at rates up to 14.4k. One feature that’s unlikely to be of use to Psion users is its earphone socket, which can be used for voice transmission.

The power, phone and serial cables all plug into sockets cunningly concealed behind a small cover, so (unlike Psion’s current Travel Modem) there are no extraneous leads hard-wired into the unit. When connected, you can check the state of your connection via



three red LEDs, and (again unlike the Travel Modem) there’s an On-Off switch to terminate the call if required. The only real drawback is that it’s too small to house batteries inside the main unit, which means more for you to carry around—either the 5V mains adaptor or a battery pack.

The Pegasus II comes with everything you need: telephone lead, mains adaptor and serial cable. It’s available in several ‘flavours’, so in addition to a ‘Psion family’ version it can also be used with PC, Macintosh and Windows CE machines, so it’s important to make sure that you specify the right one when ordering.

All in all, this is a superb little modem that can safely be recommended to any Psion user who needs a portable, high speed connection to the Internet.

Pete Sipple

Pegasus II modem

From: 3Jtech (www.3jtech.com) tel: +1 626 575 8899 (USA)

Availability: now

Runs on: Series 3c/3mx, Series 5 and compatibles, plus PC/Macintosh (see text)

Price: US\$129 from 3Jtech, or £99+VAT from Exportech (www.expotech.co.uk)

Quality ★★★★★

Value ★★★★★

As the name suggests, MindTools is not a single application but rather an intriguing collection of three separate programs. Its three components: Brainstormer, Creative-Mind and ActionPlanner can be launched either from the MindTools 'shell' or directly from their own icons on the Extras bar.

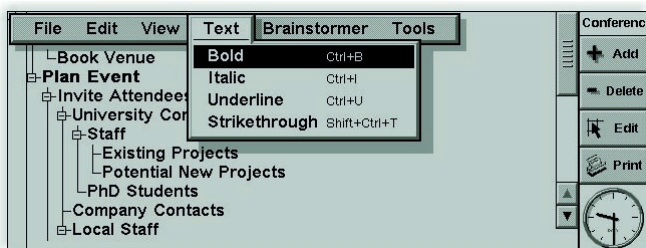
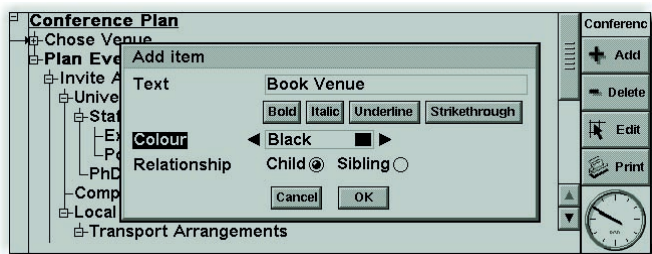
Brainstormer uses 'hierarchical lists' (similar to the outliner feature in Word on the Series 3 and 5mx) to help structure ideas and is excellent for jotting brief notes and giving them some degree of order. The help file gives a good summary of its purpose when it suggests using it to record "key issues during individual and group brainstorming sessions". As you'd expect, parts of the tree-like hierarchy of notes and sub-notes can be hidden when not required, or cut and pasted elsewhere in the list. There's also a find/replace facility, handy when you make major changes halfway through a brainstorming session. The list is presented with small square boxes and

leader lines next to each entry (see screen shot below) to give a much clearer and more graphical indication of the structure than you'd get with Word's simple outliner. Tapping on a '+' box will expand the branch of the outline below it, and tapping on a '-' box will collapse that branch.

In use, Brainstormer works well, although there are some slight oddities. The keyboard shortcuts are a little counter-intuitive, in that I'd expect to be able to simply delete entries by pressing the [Del] key and add or edit them using other single keystrokes such as [Enter], [Shift] or [Space]. In fact, it's [Ctrl]+[A] to add an item, [Ctrl]+[D] to delete, and so on. Admittedly the toolbar can be used for these functions, but when ideas are flowing you'll want to get them down as quickly as possible.

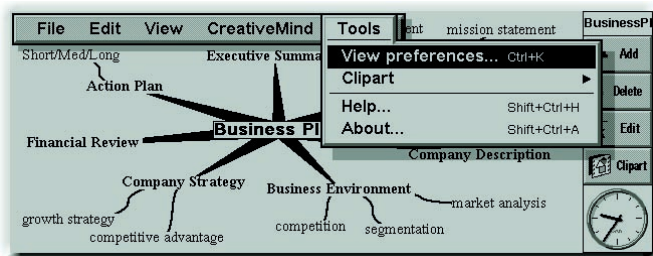
When using Brainstormer I found myself longing for 'Promote' and 'Indent' commands, or some other way to directly edit the child or sibling status of an outline

Creating a new entry in Brainstormer



Brainstormer in action. Note the array of boxes and leader lines that improve the clarity of the outline structure

A typical free-form graphical outline produced with CreativeMind



entry. It's also not possible to link entries to files or objects, which is a great shame as this would be helpful when fleshing out the bare one-line entries with more detailed notes in Word. This omission is compounded by the fact that each entry is limited to a meagre 30 characters. I suspect this is because of the need to be compatible with CreativeMind (see below), where long titles would need to be truncated to fit the display.

The second (and most visually attractive) component of MindTools, CreativeMind aims to graphically map out ideas, information and relationships. If you've ever used spray diagrams or read any of Tony Buzan's books, then you'll be familiar with the prin-

ciple—that information is generally easier to remember when it's presented pictorially rather than as plain text, and CreativeMind proves very useful in creating these easy-to-remember 'mind maps'.

Each map is created from nodes (text items), clip art items (pictures), and links between nodes. After roughing out an idea in Brainstormer, you can import it into CreativeMind to see the fuller picture (literally), although you'll have to do a fair amount of tidying up to put in other links and to make sure the text items don't display on top of each other. Editing CreativeMind maps is as simple as tapping and dragging individual items around the screen, and the display is almost infinitely zoomable to help when editing maps that are much larger than the Series 5 screen itself. Editing operations run a little slow on the Series 5, but much more smoothly on the Series 5mx. Any changes made to the map can be exported back to Brainstormer, and in general the import and export process works very well, although the icons used are somewhat quirky and I had difficulty remembering which file came from which application.

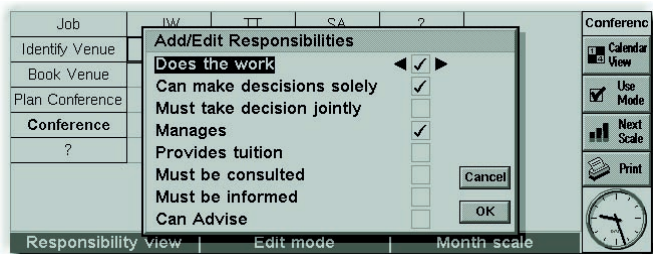
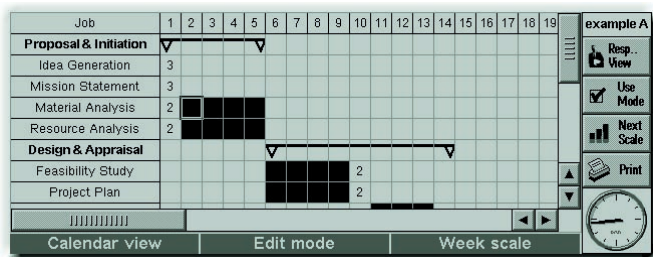
The final component of the MindTools suite, ActionPlanner is a basic project management tool, using very simple Gantt and responsibility charts to help sequence, prioritise and resource activities. It also includes basic budget analysis, action reminders, alarms (via Time) and integration with Agenda.

Alternatively...

There are other ways to duplicate most of the features of MindTools. Pelican Software's Notepad Deluxe can be used to mimic much of Brainstormer. Twiddlebit's Plan5 is a far more sophisticated and powerful project planner than ActionPlanner, and also includes support for Microsoft Project. And shareware house Palmscape have both project planner and 'mind map' applications.

Thinking more laterally, Psion's own Presentation Manager software can also be used as an outliner, and Sketch itself makes a passable mind mapping tool.

**A simple
Gantt chart in
ActionPlanner**



**Setting
responsibilities
for the various
elements of
a project in
ActionPlanner**

Unfortunately, there's no integration with the other two parts of MindTools, so you have to start from scratch if you want to create a plan. In some ways this is understandable, as automatically parsing a complex outline into a workable project plan would be very difficult. This does however tend to make ActionPlanner seem rather like a bolted-on extra, instead of an integral part of the package.

All of the MindTools components support printing, though I found the results variable. Printing via PsiWin gave good clear output that could be used in a report, but I had some problems using the LaserJet 4 driver to print directly. Only CreativeMind allows you to change the fonts used, with both Brainstormer and ActionPlanner defaulting to Courier font, which makes the former's output look a little odd. When printing directly from CreativeMind I sometimes experienced crashes. Printing to a file and sending that to the printer worked fine, apart

from a tendency to merge text with graphics, giving the text a white background.

Overall, MindTools has the potential to become an excellent application suite, but it isn't there yet. There are some rough edges, and the integration between the components could be improved. At almost £80 it's one of the most costly Psion programs ever, and despite containing three 'business' applications it's hard to justify such a high price tag to the majority of Psion users.

John Woodthorpe

MindTools

From: Widget Software (www.widget.co.uk)

Availability: now (English)

Runs on: Series 5 and compatibles

Price: £79.95 inc. VAT

Quality ★★★★★

Value ★★★★★

Mentor

Every now and then an application pops up that is both powerful and yet deceptively simple. Mentor is just such an application. On its simplest level the program is a time management and personal project planning tool, but it also has the ability to guide you towards the personal targets you have set for your life. In other words, it doesn't just help you to get a particular task done, but will also show you how to move closer to the wider ambitions you have defined for your personal and professional life.

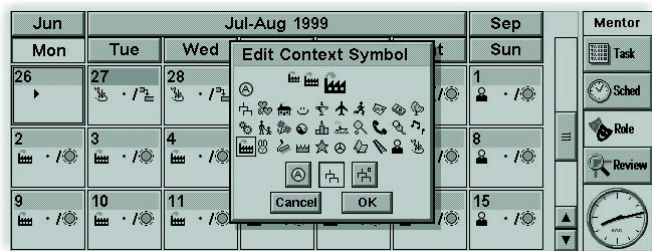
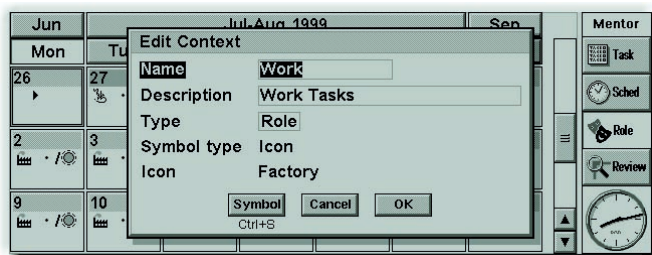
All the planning packages I've seen in the past have been based on one of two approaches. The first is generally project-based, helping you to organise and track tasks and resources to make sure that the project gets done on time. They handle people as just another resource to be moved around to complete the project. The second is rigidly time-oriented, in which you base everything

around the traditional time management methods usually promoted by consultants. This requires a disciplined approach and a specialised 'diary' to ensure that time is used effectively.

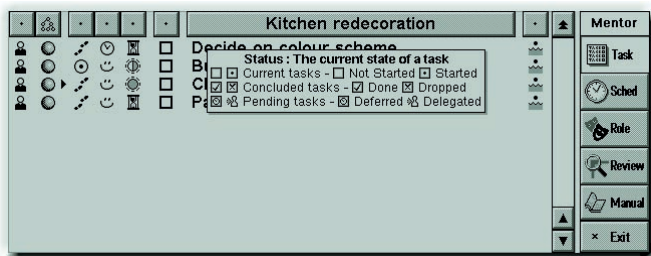
Mentor doesn't use either of these approaches, instead helping to track and plan your progress towards completing specific tasks. It shows exactly how your time is being used and then warns if you are over-committing yourself. If you take the time to set up and update the program regularly, it should help to ensure that you always manage to complete the most important tasks in your life. This task-oriented approach means that it really does act as a mentor, gently reminding you not to take on excessive commitments, or suggesting that you move on to the next priority task on your list.

Anyone who's done an NVQ course recently (something increasingly popular in the UK) will probably be familiar with Mentor's "reflective practitioner" approach to personal

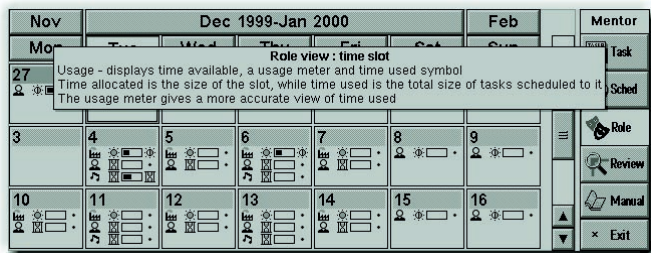
*Setting up a
'Context'*



*Selecting the
context symbol*



The context-sensitive help



The 'Role' view

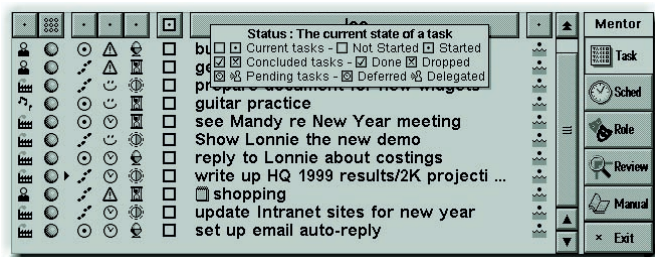
and career development. If you get your head around the cycle of Plan, Act, Analyse, Reflect (or Record, Schedule, Focus, Review, to use the terms of the Mentor manual), you'll benefit by learning more of your own strengths and weaknesses, as well as the goals you wish to achieve.

Mentor uses 'Contexts' to handle the motivation behind each task, such as those related to your work, part of a hobby, or for your continuing education. You can define two levels of context: 'Roles' and 'Goals'. Setting everything up properly forces you to think about the roles you play and the goals that you want to achieve within them. This process itself can be very challenging, as it helps you to see the things that are really important to you. At first the difference between a role and a goal is hard to grasp, but that isn't essential to get started. Once you become used to the ideas, you can expand the definitions later. The manual

offers a lot of help in this area, explaining why defining them is useful.

Goals are things that you can aspire to achieve, like "take over Psion", "learn to play bass guitar" or "decorate the kitchen". Whether you do actually achieve them isn't the issue here, only that they *could* be accomplished. Roles are the broader, longer term, aspects to which the goals belong, like "Home", "Work", "Education", etc. You'll probably only have a handful of roles, each consisting of several goals.

This concept forms the heart of Mentor, and can take quite a bit of effort to grasp if you aren't used to the ideas. To get the very best from it you should be prepared to stop and think seriously about what you want from your life. In this sense, it makes the same kind of demands as a 'real' human mentor. If you don't want to use Mentor in this way, it will still be useful as a personal task manager, but you'll be missing out on a great deal of extra functionality.



The 'Task' view

One other point to note is that the reliance on special symbols to show what's going on means that you need to become familiar with their meanings. As these aren't always obvious, I appreciated the program's pop-up context-sensitive help, accessed using [Ctrl]+[Shift]+[H] and tapping on the area of interest. It's not standard EPOC behaviour, but a handy reference nevertheless.

There's no printed documentation supplied with Mentor. Instead, you have to download an HTML-based manual from the WuLi Software web site. This manual is superb, both in guiding you through the initial setup of the application and in giving extra detail and background to aid the more experienced user. The introductory tutorial hits exactly the right note in teaching the basics of what can initially be a confusing application. If you plan to read the HTML manual on a Series 5, be

warned that the pages are big and that you'll need several megabytes of free memory.

This is a refreshingly different and very challenging application. More than any other piece of software, it has the potential to change your life.

John Woodthorpe

Mentor

From: WuLi Software
(www.wuli.demon.co.uk/wulisoft/mentor.htm)

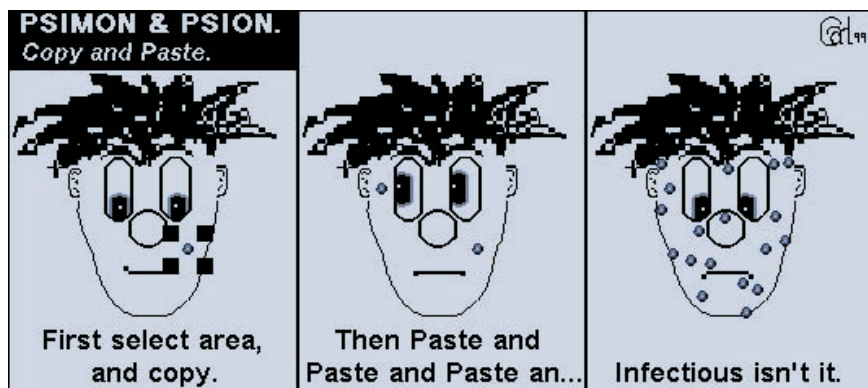
Availability: now (English)

Runs on: Series 5 and compatibles

Price: £25 registration

Quality ★★★★★☆

Value ★★★★★☆



No Man's Land

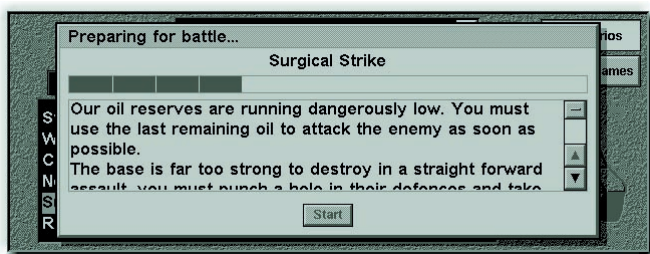
As a fan of strategy games, I was keen to try my hand with *No Man's Land*. It's a battle-field tank game, along the lines of 'Dune' or 'Command & Conquer', in which you start with a military base that has a production facility for tanks and a goal of destroying the opposition, who are similarly equipped with tanks.

Of course, you'll need to protect your own base by building tanks, walls and gun turrets, because sooner or later the enemy will come looking for you. One strategy to counter that is to go and destroy them first, but first you'll need enough firepower and some knowledge of where the enemy's vehicles and buildings are situated.

To construct buildings or tanks you'll need money, which in this game comes from a small regular income, substantially boosted by funds from oil production. Each landscape contains a number of oil wells to find and

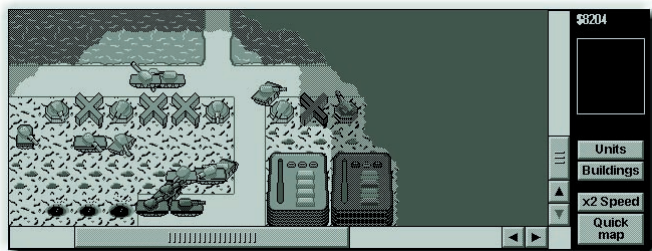
exploit, so locating and protecting these is one of the keys to success. At the same time, preventing the enemy from acquiring their own wells and putting them into production is also crucial. The heart of the strategy for winning each level of this game is not to sit around waiting until you have a big enough force to go off and fight. The chances are that the enemy may already have built up a larger, stronger force in the meantime, so you should spend your time actively hunting for oil wells and destroying those belonging to the enemy, while at the same time exploiting all of your own resources.

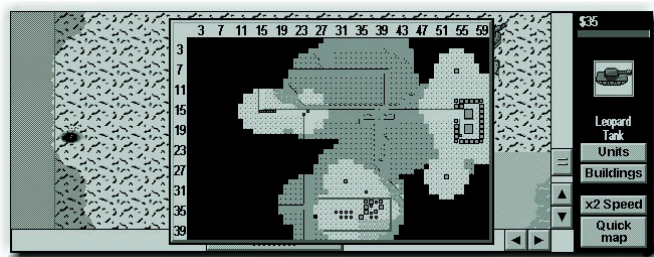
All quite straightforward so far, but then you come across what GreatApe Software call the "Fog of War". This means that you can't normally see more than a short distance in front of your units unless you build an observation tower and protect it from enemy attack. Continually sending out tanks as scout vehicles to see what the enemy is up to is absolutely essential. This in itself risks attack



The briefing for one of the later scenarios

The "Fog of War" obscuring a battle, but at least I've just destroyed three oil wells





The 'Quick Map' display, showing the distribution of forces and which areas have been explored

when the scouting tanks run into a larger group of hostiles, and so you need to ensure that you have a large enough income from oil production to keep pace with the losses.

The game is a complex balance between building up your own forces and harrying those of the enemy. It's also very difficult to complete successfully. Apart from the very first level, aptly called "Easy Peasy", all the other levels provide a stern challenge. Fortunately, GreatApe have produced a strategy guide on their web site, with walk-through solutions to three of the 22 levels. Armed with all this help, it's possible to work out your own methods for tackling the other levels, but at times it can still be very difficult to make progress. In trying to extend the game's lifetime, I fear that GreatApe may have tipped the balance a little too far towards difficulty, but then again it may be just that I haven't quite got my tactics suitably refined. Future developments may include a training mission to help newcomers.

Visually, the animated graphics in the game are superb. The construction stage of an oil well is especially detailed with a miniature drilling rig, complete with rotating drill, eventually being replaced by a 'nodding donkey' that stops nodding when the well runs dry. Don't admire the graphics for too long though, as the game can sometimes progress very quickly and you might find that

the enemy have moved in to attack while you weren't looking.

One of the most useful extras is the 'Scenario editor', in which you can create your own battlefields and set them up with bases, oil wells, tanks, etc. An incidental benefit of this is that you can have a sneaky exploration of awkward scenarios free from the 'Fog of War' and any enemy action. You can also modify the scenario to give yourself more oil wells and a more protected base, but that's tantamount to cheating, which I can't possibly condone...

Overall, No Man's Land is a highly crafted game that's well worth a look. Be patient though, as it's difficult to make much progress until you get the hang of it, and even then it will provide a stern challenge for most people.

John Woodthorpe

No Man's Land

From: Great Ape Software www.greatape.com

Availability: now (English)

Runs on: Series 5 and compatibles

Price: US\$49 (around £32)

Quality ★★★★★☆

Value ★★★★★☆

Moving to the *mx*

Nigel Wright takes an in-depth look at the process of transferring your data from a Series 5 to the new Series 5mx

You'd be forgiven for thinking that moving from the Series 5 to the 5mx would be a breeze, especially if most of your applications are kept on CompactFlash. The experiences of myself and others seems to indicate otherwise. Problems can occur, but with some foresight and planning the process can be painless.

There appear to be no problems moving Word, Sheet, Agenda, or Data files across to the 5mx, but there are issues with certain other applications, especially those from third parties. Hopefully my own experiences will provide some insight into the potential pitfalls and help you to avoid them.

Message Suite version 2

The 5mx Email application (version 2.00) has been completely re-written from the ground up. If you have Message Suite 1.52 or earlier installed on CF disk then you *must* de-install it using 'Add/remove' from the System Control panel before inserting the CF disk into the 5mx. If using PsiWin to restore

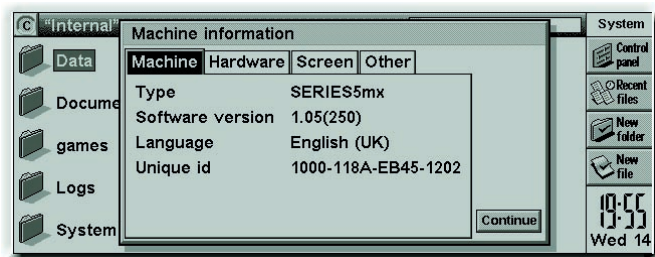
files from your Series 5 to the new mx, be sure not to move the old Message Suite files across. Some of Message Suite's program files cause problems for the 5mx, resulting in crashes or freezes.

Unfortunately, there appears to be no way of moving your existing message base from Message Suite to the 5mx, so the only viable option for getting these into the new Email application is by email forwarding them to yourself prior to de-installation. This is a nuisance but does the job. Attachments will carry over without trouble.

Macros such as SaveMail, designed for use with Message Suite 1.52 and earlier, will not work with the 5mx's Email application.

Commercial applications

Some commercial applications will need re-installation due to limitations imposed by security measures that guard against piracy. Palmtop BV's applications in particular are a good example (Street Planner 99, Route Planner, Money, etc.) They all have a form of



*The Unique ID
of each EPOC
handheld*

inbuilt copy protection to prevent users from simply copying them to another machine and running them. This also means that legitimate users can't transfer a loaded CF disk to another machine.

As far as I'm aware, all of Palmtop BV's commercial applications behave in a similar manner. The only way forward is to de-install each prior to full re-installation on the 5mx. Ensure that you have the original media ready, together with any relevant patches or upgrades to bring the applications up to their latest version. You will lose preference settings in doing this, so be sure to make a note of anything important.

Palmtop BV have issued a new version of their free Spectrum Emulator, because version 3.0 runs too fast on the 5mx, affecting games in particular. Golf and Team Psion, on Psion's Games Arcade, also run unplayably fast. See the web address at the end of this article for the relevant upgrade patches.

Applications and OPX's

Registration codes

Some shareware applications tie the registration algorithm to the Series 5/5mx's *Unique ID number (UID)*. This requires the user to provide the author with the UID when registering an application. The author then generates a registration code relating to the UID,

which is used to unlock the full functionality of the application.

Unfortunately, this always causes problems when changing machines, because each one has a different UID, and the code that was originally provided becomes invalid.

This is a nuisance for users of multiple machines or those who've replaced them because of upgrades or hardware troubles. In some cases users only need to contact the author to get a new registration code, but others require users to re-register, and if the author is unavailable then the user may be left with an unregistered application. Be sure to check with authors prior to upgrading.

UID-locked registration has resulted in some heated debate in the Internet newsgroups, as, despite being elegant and simple, it does cause real problems and is open to abuse. Certain software authors have surely lost registrations due to their insistence on using UID registration.

OPX's and macros

Many shareware applications use 'OPX' extensions, which are installed by default in the \System\Opx folder on either the internal disk (C) or CompactFlash (D). OPX's provide extra functions, and are somewhat like Windows 'DLL' library files. Common OPX's like Sysram1.opx are used by many different applications.

**The \System\
Opx folder
on my
CompactFlash**



Without actually installing them, there's no sure way of knowing whether third party shareware/freeware applications, and hence OPX's, are 5mx-friendly or not, other than by contacting the authors, or perhaps checking their web sites. Fortunately, many have been quick off the mark to either issue updated versions or declare that existing releases are already compatible.

Many OPX's are now published and controlled by Symbian on their EPOC World web site, so you may well find the latest versions there—refer to the resource section for details.

If you perform a backup of your Series 5 and then restore everything to a new 5mx you may find yourself with incompatible OPX versions on your palmtop, which can cause havoc, so it's safer (if somewhat time-

A safe strategy...

1. Back up to a desktop computer using PsiWin or MacConnect, and then back up a second time, to a new folder. This second backup is not strictly necessary, but is useful for extra security.
2. Take a note of all system settings, such as Internet Service Provider setup, email account settings, modem setup, etc.
3. Reformat your CompactFlash disk (if you have one).
4. Remove the CF from the Series 5 and insert it into the 5mx.
5. Connect the 5mx to your desktop computer.
6. Re-install all compatible applications using EPOC Install.
7. Re-enter all Internet service provider settings, email account settings, modem setup, etc.
8. Restore all of your documents (Word, Sheet, Agenda, etc.).
9. If you want to keep your existing user dictionary for the Spell application then go into Internal\System\Data within the backup directory on your desktop computer and copy 'User.dic' across to the 5mx's C:\System\Data folder.
10. Check that each installed application runs without problems.

A quicker, but more risky strategy...

Please note that the following procedure assumes a high level of competence and familiarity with EPOC. Use 'A safe strategy' as outlined on the previous page if you are unsure.

1. Close all files and then back up to a desktop computer. Closing all files first will prevent your backup software from re-opening them once backup is complete.
2. Take a note of all system settings, such as Internet Service Provider setup, email account settings, modem setup, etc.
3. Make sure that the System folder is visible (go to 'Preferences' in the System screen using [Ctrl]+[K]. Select 'Show System folder').
4. De-install any Palmtop BV applications such as Money, Street Planner, etc.
5. Completely de-install Message Suite and all of its components, if you have it.
6. De-install the printer drivers update if you have it—it's not needed because the latest versions are already held in the 5mx ROM.
7. De-install the Series 5 Service Pack and its components, if you have it.
8. Delete the folder called \System\apps\Instapp on either or both of the C: or D: disks.
9. Create a new folder on your CF disk called "Internal disk backup".
10. Copy all contents of the internal disk to the new folder using [Ctrl]+[Y] from the System screen.
11. Switch off your Psion and remove the CF disk.
12. Install the CF disk in the 5mx.
13. Copy all the contents from the internal disk backup folder (D:\Internal disk backup) to the internal disk.
14. Re-install all Palmtop BV applications.
15. Re-enter all Internet and modem settings, etc.
16. Check that all applications run without problems.

consuming) to perform fresh installations each time from the latest SIS files.

Be aware that some macros written for Macro5 may not work properly due to changes in the 5mx's menus. One example of this is in Word, where indent settings are accessed using [Shift]+[Ctrl]+[R] on the original Series 5, but simply [Ctrl]+[D] on the 5mx.

From Data to Contacts

Contacts is a new application designed specifically for holding names, addresses and other personal contact details. It is 'vCard' compliant to allow easier interchange of information with other devices and applications meeting the vCard standard. Unfortunately, Psion has provided absolutely no means to exchange information between Data and Contacts, which is especially unhelpful as

Synching contacts data via PsiWin and Outlook

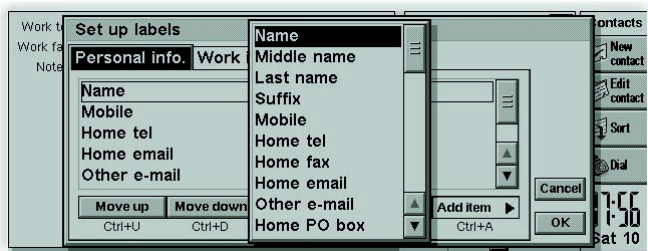
Here's the outline of a simple synchronising process using PsiWin 2.3, as supplied with the 5mx, and supported versions of Outlook (Outlook 97 in this case). Note that you can only perform this process using PsiWin:

1. Backup your existing address book Data file.
2. Create a new Outlook profile on PsiWin.
3. Set up new fields, or rename or remove existing fields within Outlook to match the labels in your existing contacts Data file.
4. Create a new synchronisation task to synchronise your existing contacts Data file to Outlook.
5. Synchronise the existing contacts Data file on the 5mx to Outlook.
6. Open Outlook and check that everything has imported properly, i.e. that the correct data appears in the appropriate fields.
7. Set up Contacts labels on the 5mx to match those in Outlook.
8. Create a new synchronisation task to synchronise Outlook to Contacts.
9. Synchronise Outlook to Contacts on the 5mx.
10. Open Contacts and check that everything has imported correctly, with the correct data appearing in the appropriate fields.

It's beyond the scope of this article to cover the mechanics of the synchronising process in depth, so refer to the 5mx manuals and PsiWin documentation for further details. There are also quite a few resource documents now available on the web, so readers may wish to refer to these as well. See 'Information resources' at the end of this article for details.

Data is what most of us have previously used to store our names and addresses. If, like me, you have a large address database then re-typing it is completely out of the question. There are therefore two options available:

either synching via PsiWin and a desktop PIM package (as outlined above) or using a dedicated third party application, as described on the next page.



Setting up labels in Contacts

Using a third party application

At the time of writing, four utilities are available for porting Data files into Contacts. They are: *MxContacts*, written by Richard Balch, *DataContact*, written by Pascal Nicholas, *ConvertData*, from Cornelius Mawby and the updated *PhoneMan Pro* from SG Software.

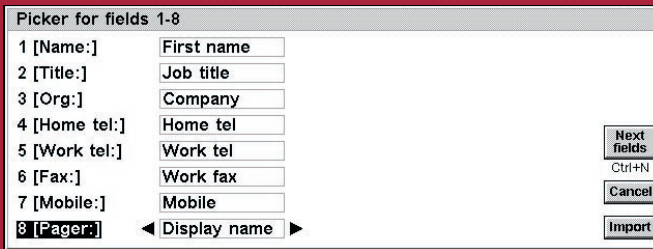
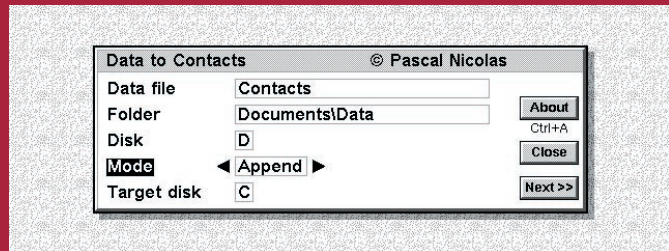
Unfortunately, Contacts doesn't allow the user to create more than one file, so if you've already started entering data into Contacts then you'll need to copy the file to another location for backup purposes and rename it to something like "OldContacts.cdb". The Contacts data file is called 'Contacts.cdb', which is automatically created by default in a folder called C:\System\Data on the internal disk. Contacts does provide the option of moving this to CompactFlash.

Refer to the instructions for each of the above applications for more details, but below is an example procedure for Pascal Nicholas' *DataContact*, which I successfully used to import my address database (of more than 1000 entries) into Contacts.

1. Open up your contacts Data file.
2. Select [Ctrl]+[L] 'Change labels' or [Shift]+[Ctrl]+[K] 'Label preferences' in order to see all the labels you have defined.
3. Make a note of all the labels you use and the order in which they appear.
4. Close your contacts Data file.
5. Make a backup copy of your contacts Data file.
6. Open the Contacts application.
7. Select [Ctrl]+[L] 'Set up labels'.
8. Add, remove, or rename labels as you desire. Try to make sure they are the same (or similar to) and in the same order as your contacts Data file.
9. Close Contacts.
10. Open *DataContact*, select your contacts Data file. Leave the rest of the options as shown in the screen shot opposite.
11. Tap on the 'Next>>' button. The field map dialog will then appear.
12. This requires the user to map the labels used in the contacts Data file to the labels specified in Contacts. Be sure that you map them correctly otherwise you might end up with some odd results.
13. Once you've correctly mapped all of your contacts Data file labels to Contacts labels, tap the 'Import' button.
14. *DataContact* will now proceed to import your Data file into Contacts.
15. Once *DataContact* has finished, close it down.

16. Open the Contacts application, select an entry and check that data has been imported and mapped correctly to the appropriate labels.
17. If data and labels don't match up properly, then you've probably done something wrong. Close the Contacts application, go to the \System\Data folder on the internal disk and delete 'Contacts.cdb'. Start the process again.

*The file
select
dialog in
DataContact*



*Mapping
Data labels
to Contact
labels*

Information resources

Useful information is now appearing in several places on the World Wide Web. One site that has several texts regarding moving to the 5mx and synchronising with Outlook is 5Alive, at: www.5alive.pSIONking.com/mx/5mxlibrary.htm

MxContacts: www.freespace.virgin.net/richard.balch

ConvertData: useritl.net/-nijel/ConvertData.htm

DataContact: www.geocities.com/SiliconValley/Pines/1215

PhoneMan Pro: www.sgsoftware.co.uk

EPOCWorld: developer.epocworld.com/download/downloads.html

Patches: Games Arcade from 3lib.ukonline.co.uk/arcadesc.htm , Palmtop BV from www.palmtopsoftware.com

Starting up:

SYNCHRONISING



If you use a PC-based Personal Information Manager program together with a Psion palmtop, then PsiWin can help you to keep the two in step

by Stefan Smith

What is synchronisation?

Synchronisation allows you to manage information (e.g. an agenda or address book) on both your PC scheduler software and your Psion without having to enter or change entries separately. When you synchronise, PsiWin checks the information in the PC application and the corresponding Agenda, Contacts or Data file on your Psion, making the necessary amendments to keep the two in step.

Do I need to synchronise my data?

Synchronisation is only for those who have a real need to keep a PC scheduler updated with information entered on a palmtop (and vice versa). It is especially useful for those who work in a group environment and need to share information with other people.

What do I need to get started?

Whichever model of Psion palmtop you own, you'll need essentially the same tools to be able to synchronise with your PC:

- ▶ A suitable version of PsiWin (the latest PsiWin 2.3 is preferred for both Series 3 and 5 users, but see below).
- ▶ A serial cable to connect your Psion to a PC. This is supplied with PsiWin.
- ▶ A compatible PC scheduling application.
- ▶ A PC running Windows 95/98/NT. Note that no synchronisation options currently exist for non-PC computers.

Using the correct version of PsiWin is *vital* if you're serious about accurate synchronisation. Read the table on the following page with care!

Note that for Series 3 users, PsiWin (including the RS232 serial cable) is sold as a standalone product. PsiWin and cable are bundled as standard with all Series 5 (and Series 7) machines. For owners of other EPOC palmtops such as the Ericsson MC218 and Oregon Osaris, PsiWin is called 'EPOC Connect', though it is essentially the same product.

Recent PsiWin versions at a glance

Version 2.0	Synchronisation works with Series 5 only. Shipped for a few months only in 1997. Now redundant. See notes for v2.1.
Version 2.1	Synchronisation works with Series 5 only. Available for download from Psion's web site or <i>Palmtop</i> CDs. Robust and adequate for synchronisation.
Version 2.2	First version to work with the Series 3 and Series 5. Serious bugs in the synchronisation engine. Avoid this version at all costs. Upgrade to v2.3 (or if you are using a Series 5 and cost is an issue, downgrade to v2.1).
Version 2.3	Now shipped as standard. Works fully with Series 3 and Series 5. Obtain this version if at all possible. Allows more data to be synchronised than v2.1 and fixes bugs found in 2.2. Some people have had problems with link reliability.

This may all seem a little confusing, but the bottom line is that if you genuinely need reliable and accurate synchronisation then you should invest in PsiWin v2.3, even if it costs you a little extra to upgrade.

What desktop packages can I synchronise with?

Assuming that you're using PsiWin version 2.3, you can synchronise with:

- ▶ Microsoft Schedule+ v7 and v7a.
- ▶ Lotus Organizer 2.1, 97, 97 GS.
- ▶ Microsoft Outlook 97/98.
- ▶ Microsoft Outlook 2000, though with some limitations. Psion don't support it directly, but see 5alive.pSIONking.com/mx/mx_outlook2000.htm for more details.

What information can I synchronise?

PsiWin allows you to synchronise the following items:

- ▶ Calendar entries (Agenda Appointments, Meetings, Events and Anniversaries).
- ▶ Tasks (Agenda To do items).

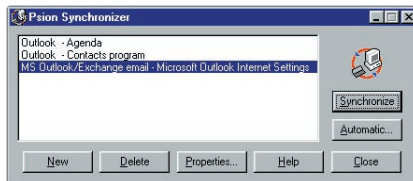
- ▶ Names and addresses (Data, or Contacts on the 5mx).
- ▶ Emails (5mx only). This is discussed in the PsiWin review on page 35, and will be the subject of a future article.

How do I set-up synchronisation between my Psion and PC?

When PsiWin is installed on your PC, a new shortcut is added to the Windows desktop, labelled 'Psion Synchronizer'. This program establishes 'synchronisation tasks' to tie together your desktop scheduler and your palmtop.

What are 'synchronisation tasks'?

These tell PsiWin what information you want to synchronise. Depending on your individual requirements, PsiWin allows you to create



PsiWin's Synchronizer

multiple synchronisation tasks. Just launch Psion Synchronizer and click on the 'New' button to create a new task. A 'wizard' is then used to guide you through the process of setting up each new synchronisation task.

Should I synchronise my Agenda and Data files using just one task?

By default, the Psion Synchronizer wizard suggests you synchronise your Agenda and Data (or Contacts on the 5mx) files inside a single task. This should be avoided. We suggest that since you can create as many tasks as you need, it's better to have one for your Agenda and another for Data (or Contacts).

There are two good reasons for doing this. Firstly, if you have a particularly large Data file it can take several minutes to synchronise names and addresses. If you don't update this information regularly then each time you want to synchronise your Agenda file it attempts to do the same with Data as well, reading across

the whole file. Secondly, synchronising can sometimes be problematic. By creating two separate tasks it's easier to identify where things are not working correctly.

How do I set-up a synchronisation task for my Agenda?

Just run the Psion Synchronizer program, after reading its help files and any written documentation thoroughly. There are also several troubleshooting guides on the PsiWin 2.3 CD.

The wizard in detail...

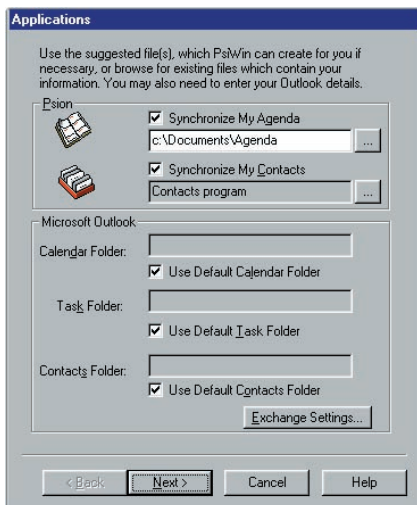
A few notes are in order here, to help you answer the wizard's questions (see boxout 'An overview of the wizard' below). In stage 2, the wizard asks you to identify which program (Agenda, Data or Contacts) you want to synchronise. It is important that you de-select Data, leaving Agenda as the only selected option.

An overview of the wizard

The Synchronisation wizard is used to provide PsiWin with the following information:

1. The desktop scheduler you are using, (e.g. Outlook 98).
2. What you want to synchronise, e.g. Agenda, Data or both.
3. Which files to use on the Psion—for example, you may have several Agenda and Data files.
4. The date ranges to synchronise. For example, you could choose to synchronise only those appointments going back one month and up to two years in the future.





Specifying an Agenda file to sync.

In stage 3, you must specify an Agenda file on your palmtop. Either enter the correct path name or click on the  button to browse your Psion directly, selecting the file when found. If you want PsiWin to create a blank Agenda file, just enter a filename that doesn't currently exist. This is useful if you want the synchronisation task to simply copy entries from your desktop the first time it is run. If you use an existing Agenda file, you must remember that only those entries marked for synchronisation will be included in the process. Refer to the built-in help on your Psion concerning which entries can and cannot be synchronised.

Depending on which desktop scheduler you use, you will also need to enter additional information in the lower half of the screen. For Outlook 97/98 users, extra fields are provided for you to select which Outlook folder should be used. Default folders are selected automatically, such as 'Calendar' and 'Tasks'. You should refer to your scheduler

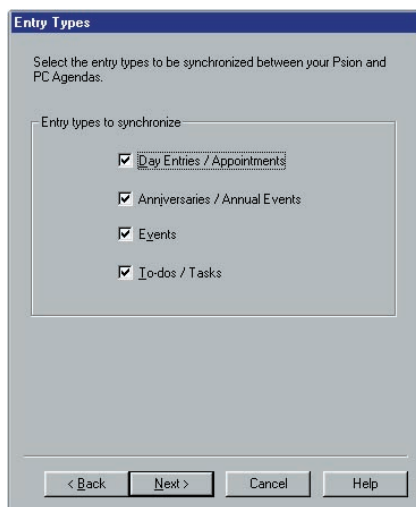
documentation to complete any remaining fields on this page.

The 'Entry Types' screen now lets you specify which type of Agenda entries should be included in the synchronisation process. You can, for example, exclude 'Anniversaries'.

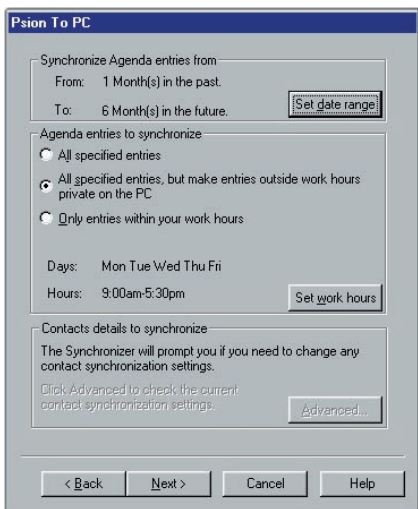
Fine tuning

Stage 4 lets you fine tune the rest of the synchronisation process. The upper area asks you to specify how many weeks into the past, and how far into the future, entries should be synchronised. For example, you may only be interested in just a few weeks in the past, but perhaps several years into the future. You may want to ask yourself these questions:

- ▶ How often will you synchronise? Regular users may wish to restrict the date range in order to reduce the quantity of data transferred, thus speeding up the synchronisation process.



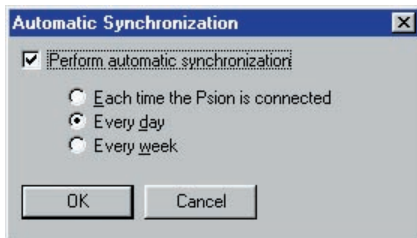
Setting which entry types to sync.



Choosing a date range

- ▶ How many entries are you concerned with? Large files, full of appointments and meetings, will take longer to synchronise, so making the date range as small as possible is a very good idea.
- ▶ How far into the future do you need to book appointments? If you make arrangements to meet with people months (or even years) into the future, you must specify a suitably far-off date accordingly.

The second half of this screen lets you control another important aspect of the synchronisation process—times. If you synchronise with a collaborative desktop



Automatic synchronisation

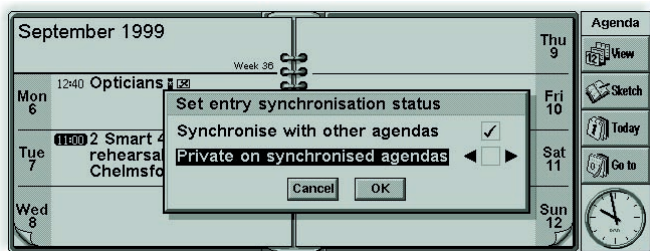
scheduler (e.g. Outlook), you may not want personal appointments in your Agenda to be copied to your desktop. PsiWin lets you filter the entries copied according to whether they occur during your normal working hours.

Now that the wizard has guided you through the setup process, you're ready to synchronise your Agenda and desktop Calendar.

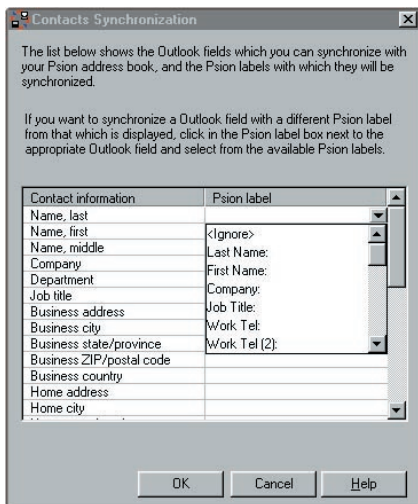
Note that PsiWin can also be set up to synchronise automatically every time your Psion is connected, or at fixed intervals daily or weekly.

How do I set-up a synchronisation task for my Data file?

Establishing a synchronisation task for Series 5 Data files requires a little more thought and preparation, depending on how your names and addresses are currently stored. If you have an existing Data file containing lots of names and addresses then you may have a little more work to do.



You can exclude 'Private' entries from Agenda via the 'Entry|Agenda synchronisation' menu option on the Series 5



Preparing to synch. your Contacts

Mapping problems

Here's the problem. For Series 3 and Series 5 users, the fields used in your existing Data file must be 'mapped' to those used in your preferred desktop contacts program. For example, 'Title', 'First Name', 'Middle Name' and 'Last Name' are all separate fields on the PC. In your Data file, you may have just one field, called 'Name', where you would enter all of the details above. Unfortunately, PsiWin isn't clever enough to work this out, and in this particular example your Data file and 'Contacts' folder in Outlook will never 'map' correctly, as Outlook will insist on separating the name fields.

The ideal scenario is where your names and addresses are already stored 'correctly' on your PC. PsiWin can then create pre-formatted blank Data files in which the fields are matched according to the desktop package you're using. The first time you synchronise, PsiWin fills the blank file with

data from your PC so you never have to worry about mapping fields.

Proceeding

To do this, start Psion Synchronizer and create a new task. Follow the same procedure as above (for Agenda files). This time however, remember to de-select the use of Agenda files, selecting only Data. As before, entering a filename for a Data file that doesn't exist will cause PsiWin to create a blank file for you. If you're using an existing Data file, select it accordingly.

The final stage of the wizard lets you map the fields in your Data file with those in the contacts area of your chosen desktop program. Click on the 'Advanced' button to provide PsiWin with this information. A two-windowed display is listed. Fields on the left are those available in your chosen desktop program, while those on the right are those from your Psion Data file. Fill in each of the blank spaces on the right, selecting from the pull down list. Some fields may never map properly, so you might seriously consider re-entering your data (or tinkering with exported delimited text files) on your PC and allowing PsiWin to create a formatted Data file. You are now ready to synchronise your names and addresses.

How do I synchronise with Contacts on the 5mx?

If you're the proud owner of a new Series 5mx/Series 7 (or Ericsson MC218), you can opt instead to synchronise your names and addresses with the new Contacts application. Follow the same procedure above, opting to use the Contacts application. In this case you won't need to be concerned with field mapping, you'll be glad to hear.

Agenda Link 97

Agenda Link 97 synchronises Agenda files from the Series 3 family/Siena to Lotus Organizer version 1.x, 2.11 or 97, Microsoft Schedule+ 7.0/7.0a and Microsoft Outlook 97/98/2000. The program is distributed by Widget Software, priced at £29.99. John Whiting, the program's author, has now completed work on a new version, called Agenda Link 2000, which features compatibility with Lotus Organizer 5.0. You can find more details at www.lexden.co.uk/alink.html

If you have an existing Data file that you'd like to import into Contacts, you'll need to use a dedicated conversion program (see page 54 for further details on this).

Can I synchronise with other desktop packages?

Yes. Other manufacturers have developed 'plug-ins' for PsiWin. These include:

- ▶ **LinkWise** (by Advansys Corporation)
 - supports Novell GroupWise version 4.1a and 5.x, as well as ACT! For more information see www.advansyscorp.com.
- ▶ **ACT!** (also Advansys Corporation) - supports versions 3.07, 3.08 and 4.
- ▶ **Insync Pro** (by Psion) - supports Lotus Notes 4.5/4.6. For more information see www.psimon.com/lotus.

Other plug-ins are currently in development. Watch www.psimon.com for announcements.

Where can I obtain additional support on synchronisation?

You may experience problems with the synchronisation process. We can't cover every possible problem or conflict in this article, but you can obtain additional information and support from the following:

- ▶ **Psion** - www.psimon.com.
- ▶ **5 Alive** - 5alive.psimonking.com.

- ▶ **Newsgroup postings** - try the various Psion newsgroups or mailing lists. There are often plenty of people who will be able to offer you good advice.

If you do not have access to the Internet, contact your local Psion support number.

What happens if one or all of my synchronisation tasks become corrupt or are deleted?

Exercise extreme care. Each task binds the data on your PC with that on your palmtop, linking them intimately together. Once a task is lost or damaged, so too are these links. Merely replacing the lost or damaged task is not the answer, unfortunately.

For example, in your desktop Calendar and in Agenda you may have a 9am appointment for Monday 27th July 1999. When the task was working, PsiWin was aware that these two items were linked, i.e. that they were one and the same. If the task is now lost, any attempt to synchronise will instead duplicate these items.

Recovering Agenda/Data

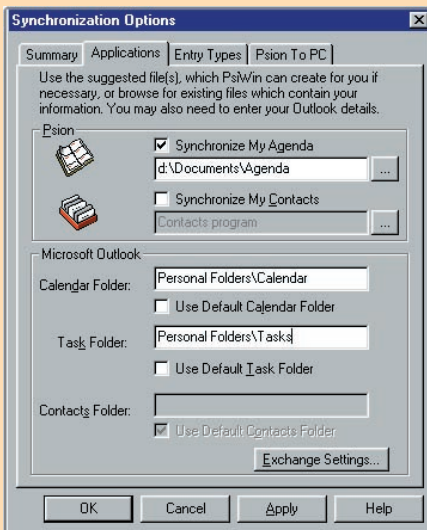
If the lost task is for an Agenda file, do the following:

1. Rename your Agenda file on the Psion.
2. Create a new task. Enter the name of a file that does not already exist on your

Troubleshooting - Outlook 97/98 Users

Most problems involving synchronisation tend to be experienced by users of Microsoft Outlook 97/98. The two most common symptoms are error messages produced when a synchronisation task is running or the completion of a task but where no data has been exchanged between the two machines.

Sometimes PsiWin cannot access the default folders selected (e.g. Calendar, Tasks or Contacts), so you may need to specify them explicitly. From Psion Synchronizer, select the relevant task and then 'Properties'. Select the 'Applications' tab (see screen shot below).



If, for example, your Agenda synchronisation task is not working, de-select 'Default folder' for Calendar and for Tasks. In the boxes provided, type in the text listed below:

If you use an Internet mail-only version of Outlook, type: "Personal Folders\Calendar" and "Personal Folders\Tasks". For those on a company network, use the following instead, inserting your own logon ID: "Mailbox - John Doe\Calendar" and "Mailbox - John Doe\Tasks". The same principle applies to the 'Contacts' folder.

Try the synchronisation process again. If it still doesn't work, check for conflicting entries within Outlook itself. In Outlook, do the following:

1. Go to 'Calendar'.
2. Select 'View' | 'Current View' | 'By Category'.
3. Search for any 'crossed swords' icons, indicating conflicting entries.
4. Double click on any entries found, highlighting the correct date and time and selecting 'Keep This Item'.

Repeat this until you have dealt with all 'crossed sword' icons.

Now try the synchronisation process again. If your problems persist, contact Psion Support or use alternative sources of help as listed previously.

- Psion, forcing PsiWin to create a blank Agenda file.
3. Synchronise using the new task. The first time you run the synchronisation process, PsiWin will simply copy all the entries from your desktop package into the empty Agenda file. The items held on the Psion and PC will now be 'linked' correctly.
4. Consult your old Agenda file for any discrepancies, as best you can. Any (recent) changes made to the Agenda file before you lost the original task will not have been synchronised correctly with your PC. Make these changes manually to the new file as necessary.
2. Close Contacts.
3. The names and addresses stored by the Contacts application in your Psion are held in the folder C:\System\Data in a file called 'Contacts.cdb'. Locate this file and rename it to 'Contacts.bak', just in case the synchronisation makes matters worse.
4. Re-open Contacts. Your names and addresses should no longer exist on the palmtop.
5. Back on the PC, create a new synchronisation task for Contacts and run the new task.
6. The Psion Contacts application should now contain your names and addresses from the PC.
7. Any changes made before the original synchronisation task was damaged will be lost.

Recovering Contacts

If the lost task is for a Contacts file, then you may well lose some information. Here's what you should do:

1. Open the Contacts application on your Psion and type [Ctrl]+[K]. Under 'Disk for contacts store', make sure it's set to 'C'.

If you didn't follow this procedure, creating a new synchronisation task and running it for the first time would actually duplicate every name and address.

A PsiWin alternative: PsiSync for Microsoft Outlook

Shareware author Brian Cadge has created an excellent program for Outlook 97/98/Series 3 users. PsiSync allows you to synchronise with Outlook and provides more core functions than PsiWin 2.3. In addition to Agenda and Data file synchronisation, PsiSync also supports:

- ▶ Email reading: it downloads the Microsoft Outlook 'Inbox' to a Data file for off-line email reading (with numerous filter options for downloading only unread messages or those of a certain size).
- ▶ Creating email: it allows for composition of short emails which, upon synchronisation, go directly into the Outlook 'Outbox'.
- ▶ Synchronisation of Outlook 'Notes' with the Jotter application found on the 3c/3mx.

PsiSync is only available from the Internet (due to licensing restrictions), from www.kerswell.demon.co.uk. Note that PsiSync will NOT work with the Series 5/5mx.

Java!

by Andrew Giddings

You've probably heard the name, but what actually is Java—an Indonesian island? A type of coffee? Well, both of these, but it's also one of the most significant developments in computing this decade. Here's a look at what it's all about, and why it'll become increasingly important to Psion users

One of the major problems with most current computer platforms: PCs, Apple Macintoshes, Unix boxes, Amigas, Ataris, palmtops running Windows CE—even Psions—is that each will only run programs specially written for that type of machine. Even different operating systems on the same machine may not be able to run the same programs. Porting (rewriting) a program for another platform, even if possible, is often a long and costly task.

Java changes all that. Programs written in Java will run, unchanged, on *any* platform (computer type) that supports Java. This includes the PC, Mac, Unix, and now, with the Series 5mx, EPOC. In future, we users may not have to look on enviously at programs running on non-Psion machines, but will be able to run them ourselves. Sun

Microsystems, who created Java, call this “Write Once, Run Anywhere”.

If Java becomes as popular as predicted, we'll soon be living in a world where it doesn't matter which computer you use, as they'll all be able to use the latest programs. The Internet has already allowed us to access information from anywhere—now Java is attempting to do the same for applications.

Past and present

In 1991-92, James Gosling was working in a team at Sun Microsystems, researching software for consumer electronics devices such as set-top boxes and PDAs. He soon realised that the C++ language they were using wouldn't let them create programs that were secure, reliable or portable enough, so he started to make modifications. These



**Warp—an
arcade game
running as a
Java applet**

soon developed into a new language, then called “Oak”.

Unfortunately, the consumer electronics market wasn't ready for Oak, but by 1994 the Internet and the World Wide Web were taking off and Sun spotted a perfect opportunity for their new language. The name “Oak” turned out to be copyrighted, so they renamed it “Java”, following a trip to the local coffee shop. Java was announced to the world in 1995, and both Netscape and Microsoft were quick to announce support for it in their web browsers.

Over the next few years, both the Web and Java enjoyed huge publicity and popularity. The initial hype may have subsided now, but Java is being used more and more widely as people realise that it's not just for adding scrolling messages to Web pages and that it has far more significant applications. Thousands of Java programs are freely available, ranging from scientific simulations to word processors, image processing to email clients and other net tools, and even arcade games. Many businesses are using it for important projects in such diverse areas as commerce and finance, medical imaging and network management, and it's predicted to be the most widely used development language by the year 2003, overtaking C, C++, COBOL and Visual Basic.

So what exactly IS Java?

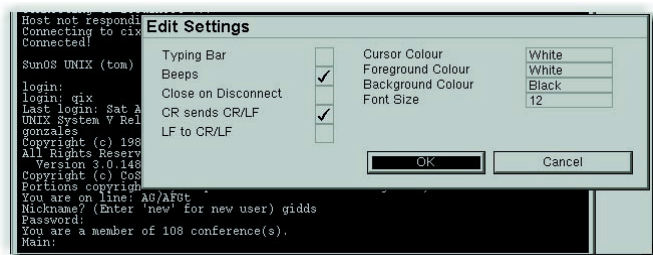
Java is really a combination of two things: a programming language, similar to OPL, COBOL, C or C++, and an interpreter, called the *Java Virtual Machine* (JVM), which runs Java programs.

The language is based on C and C++, but also incorporates features that have worked well in other languages. It is *object-oriented*, which in crude terms means that programs are constructed out of independent, co-operating units called *objects*, each possessing its own data together with the logic that operates on it. This requires a slightly different approach to design and programming than for *procedural* languages like OPL and C, but leads to much more flexible and reusable code that scales better to large projects.

Java is relatively easy for existing programmers to learn and it's also designed for safety, preventing or catching many of the mistakes commonly made with other languages and automatically handling dangerous things like allocating and deallocating memory (with ‘garbage collection’). This makes programming both easier and faster—I've found that getting some programs working in Java takes as little as a *fifth* of the time it does in C++.

Java also uses a standard *class library* containing many *classes* (object definitions), from such basics as strings, dates, files and streams, to more advanced things like zip

Telnet—a more serious Java application that lets you log onto remote systems.



files, data structures, image processing and networking. One of its packages, the *Abstract Windowing Toolkit* (AWT), handles windows, menus, buttons, text fields, and all the other bits and pieces that make up a modern graphical user interface.

How does it work?

Once a program has been written, it's then compiled into an intermediate form called *bytecode* (analogous to 'Translating' an OPL program into an OPO file). This can then be run by the JVM, which is the program running on your Psion machine that effectively simulates a theoretical Java computer (again, analogous to the OPL runtime interpreter processing the tokens in an OPO file and 'running' your program).

This has similar advantages and disadvantages when compared to other interpreted languages (including OPL). The benefits are portability and safety, but the price for this is the speed at which the interpreted code runs—in the worst case, up to twenty times slower than the equivalent native C or C++ code. This may not be as much of a handicap as it sounds, however: many programs spend much of their time doing such low-level things as managing the GUI, or network or file handling, all of which have much less of a speed penalty. In addition, many platforms now have a Just In Time (JIT) compiler,

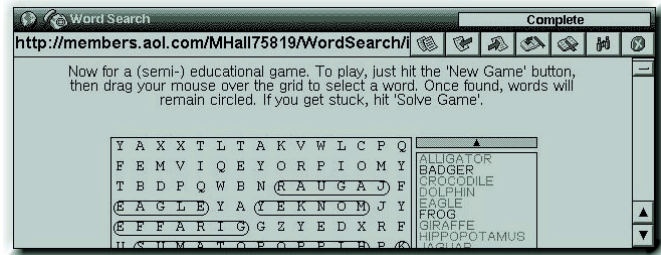
which compiles Java bytecode into native machine code (the raw language understood by the computer's processor) as it is run. This preserves the portability while giving performance equivalent to, or in some cases actually better than, traditional compiled code.

Java versions

Sun has continued to develop Java since its first release, and has provided several versions of Java and its Java Development Kit (JDK).

- ▶ The first, predictably JDK 1.0, was soon superseded by JDK 1.0.2, which fixed a few bugs and is still being used in some web browsers.
- ▶ The next major version (JDK 1.1, released in early 1997) was much faster, and added many new features such as *Java Beans* (a framework for reusable components), a new event model (aiding user interfaces), *Java Database Connectivity* (JDBC) and *Remote Method Invocation* (RMI—letting programs on different machines interact directly). There have been minor improvements to this version, the most recent being 1.1.8, but all are compatible with each other as well as running all JDK 1.0 programs.
- ▶ The latest version is Java 2 (previously known as JDK 1.2, confusingly

WordSearch—a neat word search applet



enough). It was released late in 1998, and adds many more new features, such as cryptography and security, *Collections* (a flexible framework for data structures), 2D and 3D graphics, and *Swing* (a new powerful GUI toolkit with many new components and which can change its 'look and feel') while still retaining full backward compatibility. However, Java 2 isn't available for some platforms yet and some developers are sticking to 1.1 for the time being.

Applets, applications, and security

Java programs come in two types, the first of which are Java *applications*, which run in a similar way to other (non-Java) applications, using their own windows, menus, etc. The second type, Java *applets*, are designed to be embedded within web pages and are usually run from within a web browser (though some programs are designed to run in both ways). Because of this, applets tend to be quite small, to avoid long downloads.

This of course is why Java was designed with strong security in mind; you wouldn't want a malicious applet wiping your hard disk just because you happened to visit a web page, would you? So the JVM forms a 'sandbox' around applets, cutting them off from the rest of your system, and guaranteeing security. No amount of clever Java coding can

access your personal files, contact other web sites, start or access other programs, or even bring up windows to masquerade as another program.

This is far safer than any other form of web plug-in. ActiveX controls, for example (which run under Windows), offer only 'digital signing', which guarantees their origin. You can specify whether to run controls or not, depending on where they're from, but once started, they're given full rein over your system. Whether this is secure enough will depend on whether you trust a control's author or not.

Just to confuse things, Java 1.1 also offers digital signatures, for applets that need access outside the sandbox. And Java applications, on the other hand, aren't restricted at all.

In the second part of this article in the next issue, we'll take a look at how Java has been implemented on the new Series 5mx, how to get Java applets and applications running on it, and where to find some good ones.

Advanced spreadsheet techniques

Creating a simple project management system using date formatting and some intelligent lookups

by Steve Litchfield

One of the cardinal rules of computing involves knowing your limits. One of the most intricate and innovative spreadsheets ever submitted to PocketInfo (www.pocketinfo.org) was Clive Whitear's Project Planner. Almost 50K in size and taking *minutes* to recalculate (only ever done manually, for obvious reasons), this SHEET not only kept track of start and finish dates for each task in a complex project but also displayed a rudimentary 'Gantt' chart. (In case you're new to project management and are wondering, a

Gantt chart is effectively a calendar, with each task represented by an annotated rectangle spanning the appropriate days and weeks).

Although the Gantt chart is very useful, the most important feature of a project management system is the way it forces you to break your project down into separate tasks, each probably dependent on the completion of a previous task. With a little spreadsheet magic, it's then fairly easy to calculate the expected start and finish dates for each task and thus to establish the overall project finish date.

C8		8														
Project planner			Notes: Tasks must be linked to their predecessors													
Project start:		29/06/98	Project end:		10/07/98	29/6-3/7 '98							6/7-10/7 '98			
Task name	Duration	Predecessors	Person	Start	Finish	M	T	W	T	F	M	T	W	T	F	
1 Specification	2		ClWh	29/06/98	30/06/98	1	2									
2 Design	3	1	ThWh	01/07/98	03/07/98			1	2	3						
3 Prototyping	1	2	AmWh	06/07/98	06/07/98						1					
4 Evaluation	2	3	DmWh	07/07/98	08/07/98							1	2			
5 Production	8		JoDo	29/06/98	08/07/98	1	2	3	4	5	6	7	8			
6 Testing	1	4	JaDo	09/07/98	09/07/98									1		
7 Press push	2	3	HGDo	09/07/98	10/07/98									1	2	

**Clive Whitear's
all-singing, all-
dancing original
Sheet**

Cramped but functional on the Series 3

E6 =IF(D6="", \$D\$1, G6+H6*7)					
A	B	C	D	E	F
1	Project Planner	Start date	03/05/1999		
2					
3	Tk	Description	Durat.(wks)	Depend	Start
4	1	Design boat	5		03/05/1999 07/06
5	2	Build boat	10	1	07/06/1999 16/06
6	3	Test boat	2	2	16/08/1999 30/08
7	4	Marketing/Sales	5	1	07/06/1999 12/07
8	5	Finance	6		03/05/1999 14/06
9	6	Advertisement	2	5	14/06/1999 28/06

Attempting to replicate and explain Clive's original within an article of this size is impossible. However, preserving the essence of his ideas in a much simpler alternative not only makes for a good tutorial, but also provides you with a small, simple and fast tool that you can customise easily to manage projects of your own.

Something simpler

Unlike the original, we're not going to attempt to display a Gantt chart or to support more than one 'dependency' (a previous task that has to finish before the dependent one can start) per task. We can further simplify things by ignoring the intricacy of handling individual weekdays and weekends, working instead with whole numbers of weeks. With these changes, the Sheet file can be left to recalculate automati-

cally (now taking only a second or so) and is also far smaller, at around 2K.

Let's start off with a title in cell A1 and a start date for our project in D1. As we're going to do calculations with the dates used in this spreadsheet, it's vitally important to make sure the cells containing dates are set to the correct *number format*. Sheet stores all dates as the number of days since the start of the 20th century, e.g. 36525 equates to December 31st 1999. Don't worry about Year 2000 problems, by the way, as this system works just as well beyond the millennium.

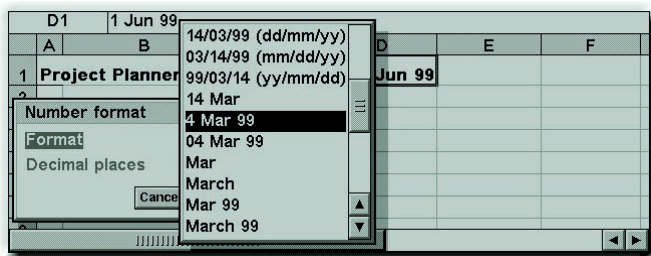
In practice it's rarely necessary to 'see' these day numbers in your spreadsheets. Simply make sure that each cell that's supposed to contain a date is pre-formatted correctly. In our case, with the highlight on D1, use 'Format | Number', selecting a date format of your choice, e.g. '4 Mar 99'. Now enter a date in *any* of the date formats that Sheet recognises and cell D1 will be automatically (and rather cleverly) changed using your particular preference.

Series 3 Sheets

As ever, there's nothing exclusive about the techniques contained within this article, and with very minor modifications (cell formatting and the use of VLOOKUP instead of LOOKUP) our project planner can just as well be used on the Series 3 range. We've used EPOC throughout simply because of screen size and cosmetics (fonts, shading and so on).

Thinking caps on

Next comes perhaps the most laborious bit of setting up a new project—thinking about what has to be done and splitting it into separate tasks, along with estimated duration and dependencies. For our example of



**Choosing one
of the available
date formats**

course, you can just make up something plausible (I set up seven tasks for my project shown in the screen shots). One particular limitation of the spreadsheet we're creating is that you must list the tasks in *roughly* the right chronological order—specifically, you must restrict dependencies to tasks which have already been defined in the rows above. In practice this is rarely a problem, as your own thought flow when listing the tasks will naturally fall into the same pattern. Note that the dependency of the very first task should be left blank, as by definition there's nothing that needs to be done beforehand.

For each task, it's the project planner Sheet's task to calculate start and finish dates based on the overall start date of the project and the dependencies you've specified. Create titles and space in columns E and F for these dates and we'll come back to fill in the formulae later on. It's also important to prepare the ground for what's to follow by highlighting the whole of columns E, F and

G and using 'Format | Number' again to set up a date format of your choice.

Inner workings

As with most spreadsheets I work on, I'm very much in favour of splitting complicated formulae into several chunks wherever possible, for ease of understanding. For each task in our project, Sheet needs to 'look up' the start date and duration of its predecessor, the task upon which it's dependent. Cells G4 and H4 can obviously be left blank, as the first task doesn't *have* a predecessor. Move to cell G5 and type in:

```
=IF(D5="","",LOOKUP(D5,$A$4:A4,$E$4:E4))
```

The 'IF' part of the formula should be obvious by now. It simply says that if there's no dependency quoted in cell D5 (because the task starts immediately at the project's outset) then there's no predecessor and G5 should be set to a blank string. For most tasks however, there *will* be a dependency

**Setting up some
example tasks
in our imaginary
project**

C4		5				
	A	B	C	D	E	F
1	Project Planner		Start date	1 Jun 99		
2						
3	Tk	Description	Durat.(wks)	Depend		
4	1	Design boat	5			
5	2	Build boat	10	1		
6	3	Test boat	2	2		
7	4	Marketing/Sales	5	1		
8	5	Finance	6			

G5 =IF(D5="", "", LOOKUP(D5,\$A\$4:\$A4,\$E\$4:\$E4))					
	E	F	G	H	I
1	End date	5 Oct 99			
2					
3	Start	Finish	Predec start	Predec duration	
4	1 Jun 99	6 Jul 99			
5	6 Jul 99	14 Sep 99	1 Jun 99	5	
6	14 Sep 99	28 Sep 99	6 Jul 99	10	
7	6 Jul 99	10 Aug 99	1 Jun 99	5	
8	6 Jul 99	10 Aug 99			

Some of the internal workings of our project planner

and the task number quoted in cell D5 is scanned for in range A4:A4, with the corresponding predecessor start date read off in the range E4:E4. This particular cell is a trivial example of the formula's operation, as the ranges involved are only one cell deep (because for task no.2 in the project there *can* be only one possible predecessor).

You'll almost certainly be wondering why I used absolute cell referencing above (i.e. '\$A\$4'). As in previous articles, it's to make constructing the rest of the spreadsheet easier. When copying this formula down the column, we want the start of the range to remain fixed at A4 while the end should be adjusted downwards, i.e. A4:A4 to A4:B4 to A4:C4, etc. In plain language, the LOOKUP function scans all previously defined tasks, and the further down the sheet we travel the more tasks there are to scan. Copy the formula now in the usual way, into cells G6 downwards. As a check (if you've done it right), cell G10 should contain:

=IF(D10="", "", LOOKUP(D10,\$A\$4:A9,\$E\$4:E9))

Similarly for cells H5 and below, which use the same LOOKUP technique but pick out a different piece of predecessor information. For these cells, use the formula:

=IF(D5="", "", LOOKUP(D5,\$A\$4:A4,\$C\$4:C4))

This will look up the duration of each relevant predecessor task. Copy it into cells H6 downwards, as before.

Columns G and H are our intermediate calculations, used so that the formulae in column E are kept as simple as possible. Again, some authors love to do all their work inside the one cell, with formulae hundreds of characters long and quadruply-nested brackets, but such complexity is usually very hard for even the author to understand a few weeks later, let alone a third party. As we discovered in issue 24, it's easy enough to keep the workings of the spreadsheet out of the gaze of casual users, so you may as well break any complicated logic down into as many steps as possible.

Start dates

With the start date and duration of each task's predecessor known, we can now use that information to calculate the start date of each task. Move across to cell E4 and enter:

=IF(D4="", \$D\$1, G4+H4*7)

Copy the formula down the column in the usual way. Looking firstly at cell E4 itself, representing the start date of task no.1, D4 is obviously going to be blank (no dependency) and so the task starts on the same date as the project itself (see the absolute reference to cell D1). Move down one row

to E5 though, and the last clause of the IF function will come into play. Essentially, the start date of each task is set to the start date of its predecessor, plus the latter's duration in weeks multiplied by seven (so that Sheet can work in its favoured units of days).

Column F is easier to set up, with this formula entered into F4 and copied down the column:

=E4+C4*7

Thus the finish date for each task is just its start date plus the duration in weeks multiplied by seven. Once all formulae are in place, and assuming you entered a sensible set of project tasks, you'll notice that all start and finish dates have been calculated correctly.

Project end

One important refinement we should add is the calculation of the most important item of all, the overall project finish date. Again, because of Sheet's excellent date handling, we can simply treat the dates in the spreadsheet as numbers. Type in a suitable title into cell E1 and then the following formula into F1:

=MAX(F4:F10)

If you entered more than seven project tasks, you'll obviously need to increase the second cell number in the range above. For this cell, Sheet simply scans the quoted range for the highest number (in this case Sheet's internal days-since-1900 number) and displays it. If F1 doesn't already show up as a date, then you'll need to use 'Format | Number' again. This is about as far as we'll take the spreadsheet in this article, but before finishing you should apply the usual cell formatting (see the screen shot below) to help new users see at a glance which areas do and don't require their input.

Where next?

Finally, experiment with the spreadsheet, perhaps changing the project start date, adding tasks, changing dependencies and so on, all the while noting the automatic recalculation of task and project finish dates. Other features which would be fairly simple to add would be calculation of the 'critical path' (i.e. a sequence of tasks which together define the overall duration of the project) and support for 'resources' (e.g. people, facilities, etc., perhaps with logic to detect when a resource is double-booked).

The finished project planner in all its glory

B4 Design boat					
Project Planner		Start date	1 Jun 98	End date	5 Oct 98
Tk	Description	Durat.(wks)	Depend	Start	Finish
1	Design boat	5		1 Jun 98	6 Jul 98
2	Build boat	10	1	6 Jul 98	14 Sep 98
3	Test boat	2	2	14 Sep 98	28 Sep 98
4	Marketing/Sales	5	1	6 Jul 98	10 Aug 98
5	Finance	6		1 Jun 98	13 Jul 98
6	Advertising	2	5	13 Jul 98	27 Jul 98
7	Product launch	1	3	28 Sep 98	5 Oct 98

WIN a **FREE** 4MB flash SSD or 48MB CompactFlash!!



Whether you're a Series 3, Series 5, Ericsson MC218 or Oregon Osaris user, you can expand the capacity of your Psion computer by winning either a Psion 4MB flash SSD or a Simple Technology 48MB CompactFlash—you choose which prize you want.

Just answer the three questions (below), and send your answers on a postcard to Palmtop Publications, PO Box 188, Bicester, Oxfordshire OX6 0GP, ENGLAND.

*We can only accept entries by postcard, and all postcards must be clearly labelled **COMPETITION 25**. Any entries received by means other than postcard will be discarded. Please include your prize choice and a contact telephone number on your postcard. Anyone posting multiple entries will be disqualified.*

All entries must reach us by 20th October 1999, and the winner will be notified on the following day. The decision of Palmtop Publications is final.

Question 1: How many pixels wide is an original GWMaths screen shot?

Question 2: What is blue on the Series 7 and black on the NetBook?

Question 3: Who helps you to 'Doodle'?

Last issue's winner: Mr M Climpson, Newcastle upon Tyne.

*Correct answers: 1. Neuron, 2. 64,000, 3. (there were actually **THREE** deliberate mistakes, any of which were acceptable: a: the three buttons on the 5mx photo are in the wrong order, b: the large 'A' is missing from all the Q&A items, c: Dartford is in Devon, not Kent). **Only 19 correct entries were received!***

Working For a Living -The IT Professional

Pete Sipple gives a personal perspective on the value of Psion handheld computers in the hands of an Information Technology professional

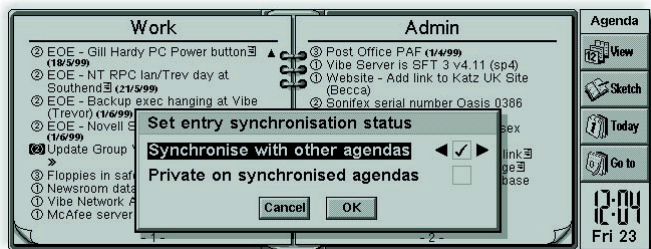
When I'm not hard at work for *Palmtop* or tapping away on a programming project, I'm either asleep or at work. OK, so I do have time for a social life too, but by day I'm kept busy as the IT Manager for a group of commercial radio stations. I spend much of my working day commuting between sites sorting out users' problems, reconfiguring hardware, upgrading software and generally keeping our expanding Wide Area Network (WAN) running at 100 percent efficiency. It's probably true to say that I'd be lost without my Series 5mx.

On-board apps

As we all know, the quality of the built-in applications on Psion machines is excellent. Most of what I need to do each day can

be accomplished using a mixture of Data, Word, Sheet and Agenda. It's impossible to list all the uses of each application to suit every computer professional, so I'll touch on how I use each application for my own IT requirements:

► **Agenda** - meetings, appointments and site visits get logged here, but my Agenda file is mostly used for To-dos. Faults or problems will be reported to me by email, voicemail or verbally. During a busy day, upwards of a dozen problems can come in which, if I don't keep notes, can get forgotten about. Similarly, a lot of my job involves chasing suppliers or engineers for parts or new equipment. Notepads and Post-It notes just don't work in my environment, but data entry into the Psion does. I also synchronise



**Synchronising
To-do items with
Outlook**

LOCATION	SITE	TYPE	MAKE	SERIAL	CPU	RAM	HD	Hardware
VIBE - Racks	Vibe	Router	3com Office Connect	X47D000				Cards List New entry Edit entry 1:05
VIBE - Racks	Vibe	Server	Compaq Prosignia 200	8710BV				
VIBE - Racks	Vibe	Raid	Compaq ProLiant					
VIBE - Racks	Vibe	Raid	Compaq ProLiant					
VIBE - Racks	Vibe	Server	Compaq Prosignia 200	8710BV				
VIBE - CR1	Vibe	Screen	Hyama Visionmaster 17"	AS19248				
VIBE - Racks	Vibe	Server	AST Manhattan S	3272000	P200	64Meg	4gig	
VIBE - CR2 (Sadie)	Vibe	PC	Clone PC (World Comp)	29945	P166	16Meg	1.2	
VIBE - Racks	Vibe	PC	PC Clone -Satek Clone	132427	P133	8Meg	1.2	
VIBE - CR1	Vibe	PC	AMC	001676	P133	32Meg	1.2	
VIBE - CR2	Vibe	PC	AMC	001154	486d	32Meg	1.2	
VIBE - Racks	Vibe	PC	AMC	001152	486d	16Meg	1.2	
VIBE - Michaela	Vibe	Laptop	AST Ascensia A	3272000	P120	16Meg	1.2	

Find: 1/333

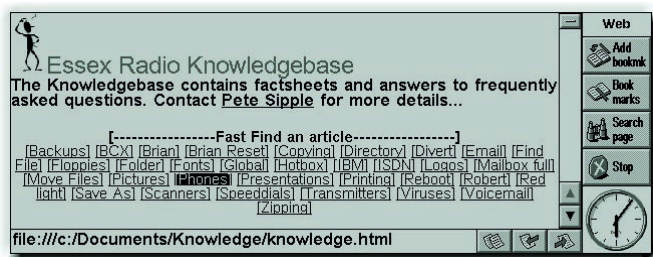
Fri 23

- ▶ **Word** - with my 5mx, I really should be using Jotter now, but old habits die hard. For me, Word is a perfectly adequate scribble pad for short notes, configuration details and business mileage claims. Once a week, I copy and convert the contents of my Word folder to my PC, cutting and pasting information into other applications as required.
- ▶ **Data** - a vital application for storing technical details, web site passwords, system configuration information and a host of other miscellany. One file, called 'Tech', contains most of the technical information I've acquired (and feel I'll otherwise forget) over the past three years.

ensure our readiness for the Millennium Bug, all hardware and software on the 150 PCs in our group of radio stations has had to be audited and upgraded as appropriate. This has meant logging BIOS information, Operating System and application version numbers, plus the patches that have been applied and the date when the machine was made Y2K compliant. The Psion is ideally suited to this task, as I can enter details on the spot without having to transcribe notes when back at my desk.

► **Sheet** - with an expanding WAN of more than 200 IP addresses (for servers, PCs, network printers and routers), I need to maintain a list of them all in Microsoft Excel, which has more sophisticated sorting capabilities than the 5mx's Sheet. I also have lists of socket numbers and locations for the CAT5 flood wiring points at each of the sites I support. These are regularly copied onto my Psion where they can be accessed whenever I need them.

Wherever possible, I ask that the users I support send me their problems or fault reports by email. That way, I can quickly sort, print and update problems. My mobile phone service provider, Cellnet, allows me to send text messages to my phone via email. By



**A portable
version of my
'knowledgebase'**

making good use of Microsoft's Outlook on the PC, I can have email messages diverted to my mobile phone and home email accounts when I'm out of the office. This means that if I'm working away from Head Office, I'll be alerted on my mobile when a new message arrives. Using the excellent *PhoneMan* software (reviewed in issue 21, page 30), I can view, save and reply to SMS text messages with ease. Although I only get to see the first 256 characters of each email, it's normally enough to give me a good idea of the content. I can then dial in via Email on my 5mx and Ericsson SH888 infrared mobile phone to collect the full message. Wherever possible, I'll reply on the spot, which means one less problem to address when I'm back at my desk.

Back at base

When back at the office, the ideal option would be for me to synchronise my emails between Outlook and my 5mx. Although PsiWin 2.3 claims to make this possible, I've had some problems getting this to work, probably as I am using the newer Outlook 2000 and not Outlook 98. If your office uses Outlook, Advansys has produced an alternative to PsiWin's convertor, called *Esync*. This also supports Novell GroupWise 5.x and Qualcomm Eudora Pro 4. They also offer a LinkWise and Act! plug-in for PsiWin to enable synchronisation to your office system.

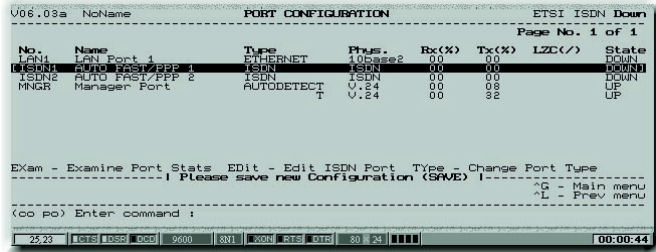
Demo versions of these plug-ins, which are appropriate to both Series 3 and 5 families, can be found on some versions of the PsiWin CD, or are available from the Advansys web site at www.advansyscorp.com.

Web resources

Computing has become so complex these days. Just about every part of a PC's internal workings is produced by a different manufacturer, and is not always compatible when used in another machine. If a disk drive fails or there's a problem with a machine's BIOS settings, you can be stuck for an answer without the right documentation. This is one example of when the Internet can save the day. Most hardware and software manufacturers have quite complex support pages and, with a little searching, finding an answer is within your grasp. There have been a couple of occasions where just the SH888 mobile phone (see issue 19, page 9) with its built-in modem, together with Psion's web browser, have helped me to get hardware back up and running. OK, so the connection may be slow at just 9600bps, but it's still faster than moving slowly up a queuing system on a company's premium-rate telephone support line.

Much of my time is spent supporting users and solving their problems. As most of them have access to our company's Intranet, it

Setting up a 3Com router with Hermes



made sense for me to set up a 'knowledge-base' of frequently asked questions in an attempt to help users to help themselves. Many of the pages are pitched at 'technophobe' level, but some contain configuration information useful to me and to our hardware maintenance company's engineers. For this reason, I keep a second copy of the knowledgebase on my 5mx.

Talking to little boxes

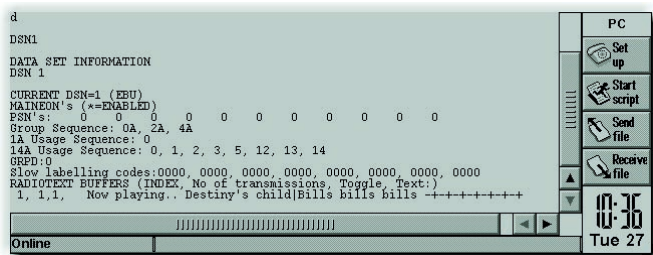
For a computer engineer to be able to work in the field, it's essential to have a laptop—isn't it? Well, yes and no. My company have issued me with a laptop, which does get a lot of use when I'm problem solving at remote sites. I'd love to be able to get rid of it completely, but there's one essential thing that a laptop can do that a Psion can't—connect into a network and allow me to configure our Novell and NT file servers. Apart from that, a surprising amount *can* be done with just a Psion computer. As mentioned before, our

company has multiple sites connected to a large network. We make extensive use of the 3com OfficeConnect family of routers, which often need configuration. In common with most routers, an RS232 serial port is provided to allow connection to a laptop. Using a small 9-pin to 9-pin null modem adaptor, it's possible to connect a PsiWin cable into our routers, either to backup the configuration, check the link status, or make changes. Although I have no personal experience of them, I understand that the Cisco 1600 and 3600 series routers can also be controlled in this way.

I've found that the freeware application *Hermes*, by Richard Panton, makes the ideal partner for Series 5 users, as it offers a great deal more flexibility than Psion's built-in Comms application. As well as standard comms options, this package gives telnet support over TCP sockets and improved keyboard control.



Reconfiguring a large switchboard with a small Psion



Talking to broadcast equipment via Comms

Switchboard access

As well as computer networks, I'm also responsible for our company's phone switchboards and am frequently asked to reconfigure a particular handset, change a phone's divert settings, or simply correct the system's clock during a GMT/BST time change. In common with many switchboards, a maintenance port is provided for an engineer's laptop. By using my Psion and a null modem adaptor, I can plug into the SDX Index switchboards in use at four of our sites and get to all the system settings.

Obviously, whether you are using Psion's Comms or Hermes as your communication package, you have to ensure that the port speed, handshaking and emulation type are correct—it's best to refer to your hardware's manual, or use the time-honoured 'trial-and-error' method. It's not just standard IT hardware that can be controlled in this way, and I have successfully connected to some broad-

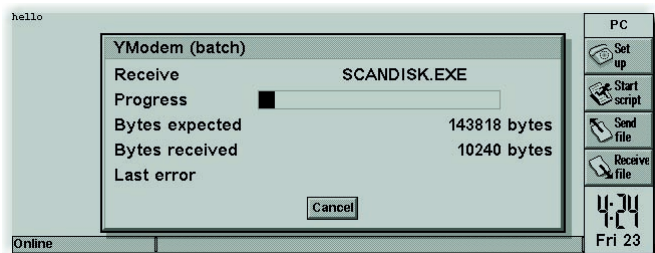
cast equipment, such as transmitter encoders and ISDN voice terminal adaptors.

Another useful trick worth considering is the ability to send a file from a Psion to a PC without having to load PsiWin. By connecting to a PC's serial port, it's possible to connect and send files in either direction using your PC's communication package (Windows 95/98 users can use the built-in HyperTerminal program) and the Comms program that's supplied with both Series 3 and Series 5 machines. This is another example of the Series 3 outshining the 5, as it has a wider range of file transfer protocols available, including the old-but-efficient Zmodem.

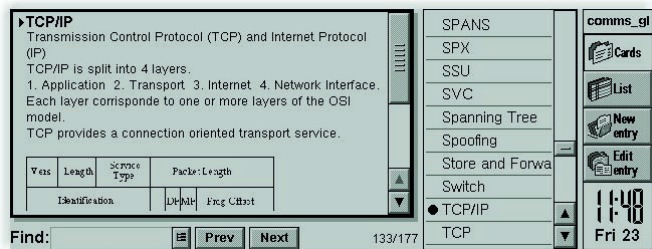
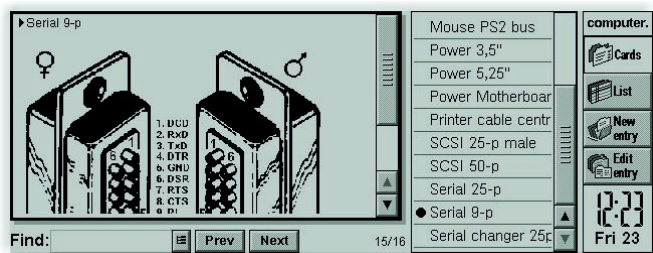
PocketInfo

As I mentioned in issue 23's 'On The Net', the PocketInfo web site is a repository for all sorts of downloadable information. For the IT professional, as well as the average PC

Copying from PC to Psion with Comms



**Handy
connection
information**



**Acronyms
explained from
a PocketInfo
database**

user, there's a host of useful files available in Data format, usually for both the Series 3 and Series 5 family of machines. Examples include:

- ▶ A glossary of internet terminology
- ▶ Common domain names
- ▶ HTML tags
- ▶ Networking terms
- ▶ Windows 95/OSR2/98 cabinet indexes
- ▶ Computer connectors and pinouts
- ▶ Year 2000 Millenium Bug resources

My own machine is loaded with a couple of glossary files and the connectors information—invaluable when making up serial cables. These, and many other files, can be found at www.pocketinfo.org.

Hopefully, by recounting how I use a Psion palmtop in my own day-to-day IT life, this article may give others in the computing industry some ideas. Now if only someone out there could write an application to monitor a network, unjam a printer, teach a user how to reboot a machine and get my lunchtime sandwich, they'd make a fortune!

Software availability

Hermes 0.5.1 by Richard Panton, free-ware from www.iota.demon.co.uk/psion.

PhoneMan 1.45 by SG Software, £15 from www.sgsoftware.co.uk.

Advansys Synch convertors from www.advansyscorp.com.

Getting along with Macro5

As the second item in our series discussing the benefits of add-on software, we take a guided tour around Pascal Nicolas' Macro5 for the Series 5 range

by Nigel Wright



Macro5 is a utility designed to extend the built-in functionality of the Series 5/5mx, provide automated functions and give you improved productivity. It's similar in concept to Henry Hirst's *Hotkeys* (featured in issue 24) and Jason Kneen's *ExtraBars*.

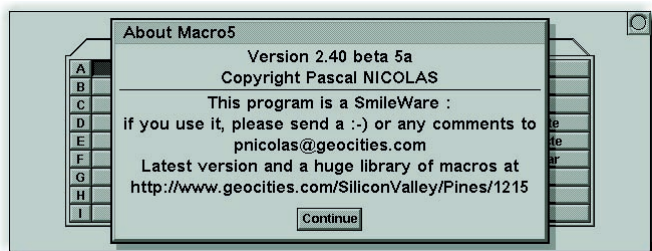
Installation is more complicated than it ought to be, as the supplied Zip archive also includes example macros, numerous text files and extra SIS files. It would have been much simpler to have included everything in one single installation file. With so many separate

text files to read it's hard to be sure that all pertinent information has been digested. Once successfully installed though, Macro5 becomes well worth the effort...

So what does it do?

With Macro5 you can define up to three panels of 27 shortcuts and up to 16 'hotkeys', each of which can be set to perform such tasks as:

- Switch to, start or open applications and documents.



Macro5's title screen

- ▶ Paste predefined pieces of text, e.g. signatures, addresses, time and date stamps, etc.
- ▶ Execute macros (using all of the normal OPL commands, plus some additional ones that come as part of Macro5's own macro language).
- ▶ Jump directly to a pre-set folder from any other application or folder.

There are many other useful things Macro5 can do:

- ▶ Redefine any of the silkscreen command icons, allowing you to re-assign those that are used infrequently (such as infrared) to run favourite applications, macros, and documents instead.
- ▶ Cycle through all your running applications in the same manner as [Alt]+[Tab] in Microsoft Windows.
- ▶ Automatically adjust screen contrast and turn the backlight on at predefined times.

- ▶ Execute macros automatically at switch on or startup.

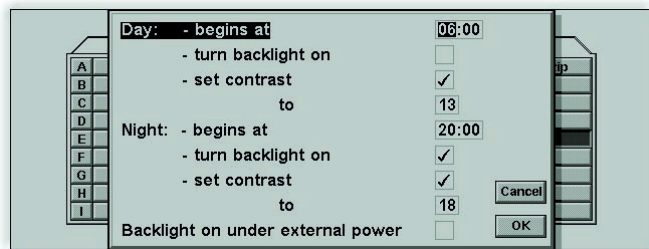
Using the 'Macro at switch on' command, you can configure Macro5 to automatically jump to Agenda when your Series 5 is switched on at the beginning of the working day. Similarly, using the 'Macro at startup' command you can automatically restart all your favourite applications and files (perhaps after a backup) by simply selecting Macro5 from the Extras bar.

Shortcuts

As mentioned before, you can define a total of up to 81 shortcuts. A shortcut can either be to a document, a chunk of text for pasting into documents, an application, a folder, a keystroke or a macro.

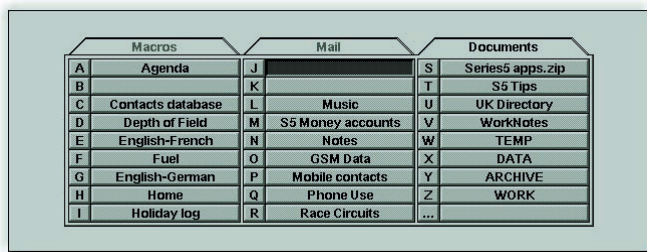
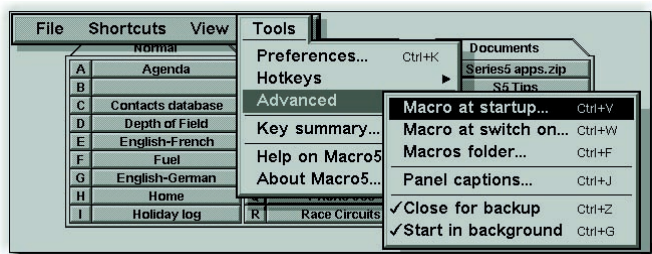
You can gain access to these shortcuts by bringing Macro5 to the foreground using a special key combination. By default this is [Fn]+[N], but it can be changed to virtually

**Cycling through
running tasks
by using
[Ctrl]+[Space]**



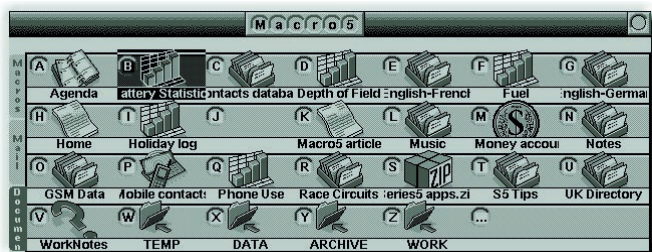
**Setting the
backlight
options**

The Advanced settings



Macro5's three panels, containing up to 27 shortcuts each (standard view)

The alternate 'Graphical View'



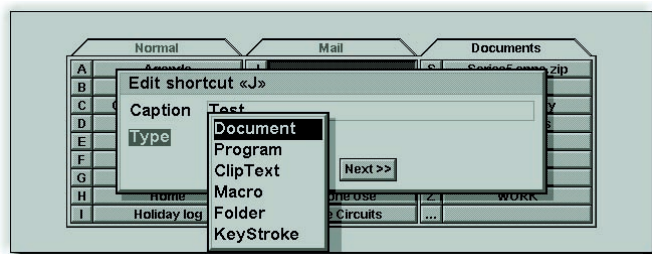
any other combination that doesn't clash with something else. I assigned the infrared command icon to the first panel of shortcuts, [Shift]+[infrared] for the second and [Ctrl]+[infrared] for the third. All very easy to remember.

Once in the foreground, you simply press the appropriate key for the shortcut you want. For example, if I want to jump to (or open up) my holiday itinerary I simply select [Ctrl]+[infrared] to bring my documents shortcut panel to the foreground, followed by [I] for my itinerary.

In real-life use, it's even quicker and simpler than can be described here. In a couple of seconds I can select and open a file without having to wade through multiple folders.

User-defined hotkeys

I find that with heavily populated shortcut panels it's sometimes difficult to find the right shortcut. Macro5 overcomes this limitation by allowing you to define up to sixteen 'hotkeys' for quick switching to applications, documents or OPO programs without first having to bring Macro5 to the foreground.



Defining a shortcut

Special user hotkeys



On the 5mx, Time has been relegated to the Extras bar, making it necessary to tap on two icons to access it. I find this inconvenient and so assigned a shortcut to it: [Fn] + [T].

This is a useful feature if the application in question doesn't have its own program icon, if you have to wade through rows of icons on your Extras bar in order to reach it, or if the file is buried within layers of folders. Macro5 simply makes for a quicker way of working.

Macros

The real magic behind Macro5 is the ability to run small pieces of program code called 'macros', to perform such tasks as changing the case of selected text in Word, working up a sort function in pre-mx Sheet, accessing the battery statistics, automatic linking between Agenda and Data files and turning the remote link on or off.

At their simplest, macros can be recorded as a series of key presses for subsequent playback, but to get the full benefit of Macro5 some programming knowledge is required. Don't let this frighten you off, however. The Macro5 web site already has over 100 useful macros from a variety of sources, and these will satisfy most people's needs.

Cliptext

Another good feature is the 'cliptext' function—quicker but less extensive than the ExAb macro above. The idea's the same though, allowing you to define an abbreviation and then have the full piece of text pasted quickly into a document. This might be something straightforward, such as your own address, or perhaps a time and date 'stamp'. For example, a piece of cliptext might include '%date dn DD mn YY%', which would be pasted into your document as 'Mon 15 Mar 2000'.

Defining a date stamp



Some example macros

SaveMail: Archives Message Suite mail into a Data file (pre-mx Series 5 only).

ExAb: Extended Abbreviations from a database. You create a database of addresses, names, signatures, etc. which can later be pasted in as needed by entering the appropriate abbreviation.

BattM: Battery Meter that displays condition and usage. Can be scheduled to appear at switch on, or at a specified interval.

DateOn5: Automatically brings Agenda to the foreground and jumps to today.

Calendar: Pops up a calendar, whichever application you're currently in.

Nolightoff: Disables the backlight timer when mains power is available.

TaskOnSys: Redefines the System icon to display the 'Open files' list when pressed.

FlipLink: Enables/disables the remote link, whichever application you're in.

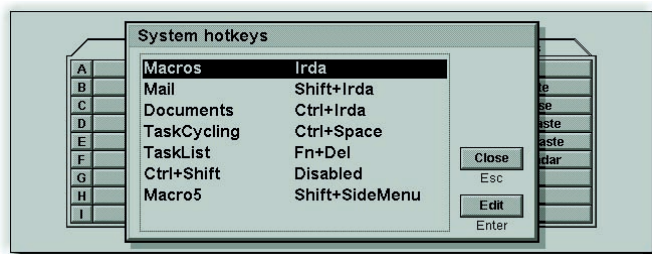
Macro5's comprehensive and clear online help gives some excellent examples for the novice to learn from, so the learning process is simpler than you might imagine.

System hotkeys

There are seven editable system 'hotkeys' which allow access from within any application to the three shortcut panels, together with task cycling, a task (open files) list (usually reached from the System screen using [Ctrl]+[J]), a [Ctrl]+[Shift] shortcut key combination, and one to bring Macro5 to the foreground.

5mx compatibility

Some macros may not work as expected when used on the new 5mx, as some of the shortcut keystrokes and menus have changed. Macros designed to work with Message Suite 1.52 and below will probably not work either, because the 5mx's Email and Web applications are both major rewrites. New versions of popular macros may well become available in due course, but you might like to consider modifying them yourself as many are supplied with the original source code.



A list of system hotkeys

CronTab in action



CronTab

CronTab is a freeware companion application, designed to work alongside Macro5 as a task/macro scheduler. At preset times CronTab can run macros and other applications, open documents or sound hourly chimes and alarms. For example, each morning at 6am on my Series 5mx, CronTab runs a memory defragmentation utility to recover space. After that it brings my To do list to the foreground (at 8:15 am), ready for when I start work.

CronTab is also largely capable of replacing Time in everyday use as an alarm clock (although it can't access all Time's alarm sounds).

Useful and free

Don't be put off by the word "beta" in the title of Macro5's current documentation—it's nothing of the sort. I've tried alternatives that have a broadly similar level of functionality

but Macro5 remains my favourite. The interface is simple and uncluttered, it's reliable, and it's very fast. As with any application sporting such power, it's best to take time to explore its capabilities and try different ways of using it. Macro5 is one of those genuinely useful gems where, once you've grown accustomed to it, you're left wondering how you ever managed without it. It's extremely versatile and only really limited by your own ideas and dedication. And it's free!

Available on recent Palmtop CDs, or from www.geocities.com/SiliconValley/Pines/1215.

THREE for all

Stuart Gray examines more highlights from the Series 3 world

It's the time of year when anxious pupils and parents are looking out for the envelope containing exam results and making decisions about the next course of action: which further exams, what degree and which college to plan for. Maybe you have promised your child a Psion as a reward for good results, and why not? With a buoyant second-hand market (and the confidence to buy wisely, following Steve Litchfield's article in the last issue of *Palmtop*), you can pick up a good 3a or 3c for less money than a handful of chart CDs—and *what* a tool for the diligent student. The ability to take notes in lectures, to log, calculate and produce science results on the lab workbench, record assignments (and set alarms to warn of impending deadlines), and write up and print off those assignments, all in the palm of your hand.



Solving maths problems

Other tasks that can be accomplished with the addition of some third party software will be of interest to mathematics and engineering students. These are the ability to solve complicated mathematical formulae or graph knotty expressions. There are a number of packages that achieve one or both of these tasks, and here's a look at their relative merits.

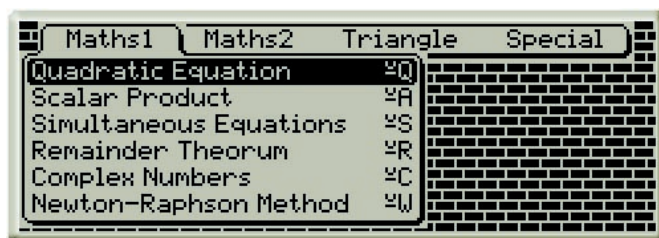
Q-Calc

The first program we'll look at is also the newest, released early in July by Graham Parks of Sheep Productions. *Q-Calc* takes a formula, written in natural form, and then allows a number of operations to be carried out. These include solving simul-



Q-Calc in action on the Series 3

GWMath
about to tackle
those accursed
quadratics...



taneous equations or quadratic equations, and finding unknown sides, angles or areas of triangles. It also contains some useful statistics functions and factorials, plus the more obscure trigonometric functions such as sinh, cosh and their arcs. Q-Calc is shareware at £10, with the unregistered version restricted to 30 answers per day for 30 days.

Also by Graham Parks is *Sheep Graph*, a freeware utility that graphs a function and allows the cursor to trace the line, so that any pair of x and y values on the graph can be determined. The graph may be zoomed to improve the accuracy of the trace, and can also be saved as a PIC file, for printing by *Draw* or *PicPrint*.

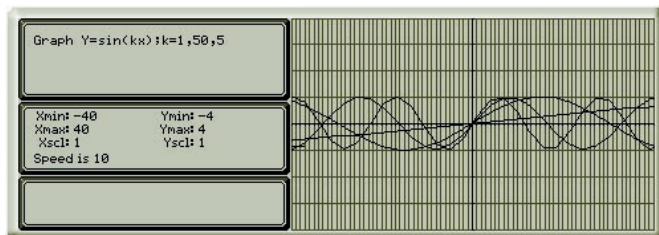
GWMaths

Another maths processing program is *GWMaths* by Gareth Wild. Like Q-Calc, it solves equations and functions using a variety of methods. All the common types are there (simultaneous, quadratic, etc.), along with such unusual algorithms as

Newton-Raphson and Remainder theorem. The ability to calculate the vector sum of up to six vectors is very useful to anyone studying mechanics, as is the multiplication and division of complex numbers to pure mathematicians and electrical engineers. Triangles can be calculated and integrations carried out. GWMaths is a Series 3 Classic program, running on later models in 'compatibility mode'. It thus suffers from blocky screens and a less slick interface than Q-Calc, but this is amply compensated for by the wealth of routines and the fact that it is free.

Graph 3a

Again by Gareth Wild, *Graph 3a* complements GWMath by providing a graphing program that displays and prints high quality plots. Equations are entered using standard notation, without the need to include multiplication signs or power symbols (as would be necessary in Sheet). Prefixed numbers are understood to be multiples, and suffixed



**Get plotting
with Graph 3a**

numbers are powers. Graphs appear on the right of the screen, and again can be zoomed and traced. An interesting feature is the ability to produce graph 'families', where one of the factors in the equation is stepped between a minimum and maximum and the graphs overlaid on the same set of axes.

Gplot

Finally comes Matthew Millar's *Gplot*, which combines both equation solving and graph plotting. Originally designed as an aid to interpreting physics experiment results, Gplot achieves this end in several ways. Functions can be integrated or solved by the Newton-Raphson method, and high order matrices can be solved.

Perhaps most useful however is the ability to import a series of points (x-y coordinates) from Sheet and plot them, even producing a best line fit. Once data has been imported, it can be edited and exported back again, and it is even possible to include errors in the y-values, representing the accuracy of the equipment in use. This facility alone will make the program immensely useful for physics and engineering students.

Up to three plots can be current, one full screen plus left and right half-screen displays, but unfortunately none can be printed directly from Gplot, instead relying on the "take a screen shot, then import it into

another package" route. Since this is true for most of the programs here, it isn't such a problem. Gplot is shareware at £15.

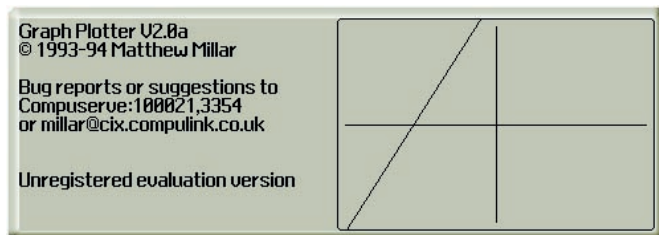
Finding solutions

If you want to solve equations with the widest array of options and can put up with the clunky interface, GWMaths offers a lot of flexibility and is free. Sheep Graph offers straightforward function plotting, also for free, but without printing. Graph3a offers the best range of graphing options, including direct printing and the option to print families of graphs. Q-Calc has the best interface, providing 'real' maths notation in the manner of MathCad on a PC, and an impressive battery of functions and utilities. However, it's Gplot that offers the best combination of maths functions and graphing. So, for your budding science student, consider investing £15 in this useful application.

Software availability

Q-Calc and **Sheep Graph** are available from CD08 onwards.

All other software mentioned in this article appears on all *Palmtop* CDs.



**Matt Millar's
Gplot**

FOR SALE, WANTED, ETC...

Series 5 (8MB) with unique professional custom paint job (metallic antique pine), Psion Games Arcade and Lots of other Software Installed - £200, no offers. Also, Series 3c (2MB backlit), Autoroute Express on SSD, Games Deluxe on SSD, 2MB Flash, 128K Flash, leather case and power supply - £120, no offers. 3a Printer link and Serial link, £10 each.
Contact : Darren Batty on 01246 451089
Email: pheny@lineone.net

Series 5 (8MB) plus leather case, mains adaptor, parallel link, Palmtop Money, Route Planner, PsiFax modem, 2 spare Stylis, Palmtop subscription with back copies to issue 13 (8 months subscription still remaining), shareware CD-ROM. All in original packaging with manuals and some items still within warranty - £375.
Contact: Jon Lassman on 01273 411114 or 0181 587 8897
Email - Lassman@btinternet.com

Ericsson DI 27 - £60
Contact: Jim on 0191 2814922

GPS Navisys for Series 5 in-car use - £80.
Contact: Giovanni on giovsel@tin.it

Brown Vega antique leather wallet for Series 5/5mx. Fully lined, pockets for 3 credit cards, 2 CF disks and compartment for notes - £25 plus FREE matching wallet to hold 4 CF disks. Expense Manager for Series 5 - £25.
Contact: Sunny on 07714 242 516
Email: sunny@nexus-sheep.freemove.co.uk

Psion Series 5 (8MB) - £240.
Contact Noel on 01646 694340
Email: noelp@lineone.net

Series 5 (8MB), CompactFlash card, PC card modem adaptor and Dacom GSM Gold Card modem, Series 5 mains adaptor, parallel adaptor, Purple Software Navigator, sleeve case, Widget Software's 'Making the most of your Series 5'- around £500 for everything, or would consider splitting.
Contact: Richard Carter on 0171-248 5419 (work)
Email: richard.carter@eur-child-trust.org.uk

Series 3c (slight connection problem with screen, but perfectly useable) with PsiWin 2.2, cables and Canon BJ-10sx printer (no parallel cable) - £75 for everything!
Contact: Gary Hart on 07803 432497 (mobile)
Email: gahart@essex.ac.uk

Serial cable for Geofox 1 with manual and power supply - offers please. Also Route Planner, Street Planner and Series 5 Bridge - £30 each. Discount for 2 or 3 together.
Contact: Chris Mennie on 01494 488471 evenings or 0181 7338235 in office hours.

Series 5 (8MB) - £200, Psion Travel Modem - £50.
Contact: Peter Tompkins on 07801 677999 daytime to 6pm, or 0836 346612 evenings.
Email: peter.tompkins@talk21.com

Series 5, purchased August 1999 with extended PC-World warranty until June 2002 - £295.
Contact: Paul Stanhope on 07887 727462

Psion PC Card Modem Adaptor - £50, Psion Dacom Gold Card modem for Nokia 8110 - £50.
Contact: Andy Palmer on 01642 804484
Email: andyp@littlep.idps.co.uk

Siena (512K) with leather case - £50, Series 3mx (2MB) with Monopoly, Autoroute Express, Scrabble and other games SSDs - £150.
Contact: Lynn Jeppesen-Thomson on 01236 710727 (evenings only)

Series 3 software all on SSD: Autoroute Express, Berlitz Phrase Book, Chess, DataView Pro, Games Deluxe and Graphics Deluxe, together with Vega leather SSD holder and Widget SSD rack - £75 plus postage.
Contact: Eric Forward on 01383 734010 evenings/weekends

Money - £25 (no manual), Money 3a - £35 (no manual), Financial Calculator - £20, DataView - £25, DataView Pro - £40, Chess 3 - £15, Chess 3a - £20, Games 1 - £15, Games 2 - £15, Games 3 - £20, Games Deluxe 3a - £25, Pipemania - £15, Monopoly - £20, 3Fax modem - £150, 128K RAM SSD - £35, 512K RAM SSD - £80, 128K flash SSD - £25, 256K flash SSD - £40, 1MB flash SSD - £100, 2MB flash SSD - £150, 4MB flash SSD - £250, SSD toast rack £8, desk stand - £10, 3/3a printer link - £20, PsiWin for Series 3c - £60, Psion 3c parallel printer link - £25, Series 3c (2MB) - £200, PsiMail Internet - £40, Psion Travel Modem for Series 3c only - £150, Psion II (without sliding cover) with Finance pack and 8K datapack - £20, Psion Organiser II mains adaptor - £10, Organiser II printer mains adaptor - £10, Comms link - £35, Psion Organiser II 'Using and programming' manual - £10.
Contact: Paul on 0191 4550330 (tel/fax) or 0860 434008 (mobile).
Email: paulkevin51@hotmail.com

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This service is not available to non-subscribers, nor to Psion dealers. We bear no liability for items bought or sold from this page.

A beginners' guide to **PROGRAMMING** your **Psion**

Part four of our easy introduction to programming. In this instalment Leigh looks at decision making and branching

by Leigh Edwards

In the last issue we looked at the process of defining and calling new procedures. This time we'll finish off procedure calls and move on to decision making and methods of branching within a program.

Procedures by any other name

Referring back to our `calcvat`: example procedure from last time:

```
PROC calcvat:(value,vatrate)
    RETURN value * vatrate
ENDP
```

We could call the `calcvat`: procedure in a number of ways. For example:

```
PROC vat:
    LOCAL amount,vat,plusvat
    AT 1,4 REM position the cursor to position 1 on line 4
    PRINT "How many Pounds Sterling?",
    INPUT amount :REM get a value from user
    PRINT "Current VAT rate e.g. 0.175?",
    INPUT vat :REM get VAT rate from user
    plusvat = calcvat:(amount,vat)
    PRINT "The VAT amount is =",plusvat,"pounds"
    GET
ENDP
```

Or we could call it and use the return value directly without using the `plusvat` intermediate variable, i.e. substitute the two lines in bold with:

```
PRINT "The VAT amount is =", calcvat:(amount,vat),"pounds"
```

Alternatively, procedures can be called by holding the name of the procedure in a string variable. Use an @ symbol, optionally followed by a character to show what type of value is returned, e.g. % for an integer. Follow this with the string expression in brackets. You can use either upper or lower case characters.

Here are examples showing the four types of value that can be returned:

```
i% = @%(name$) : (parameters) for integer
l& = @@(name$) : (parameters) for long integer
s$ = @$ (name$) : (parameters) for string
f = @(name$) : (parameters) for floating-point
```

So, for example, you could use:

```
plusvat = @("calcvat"):(amount,vat)
or
```

```
LOCAL vatproc$(8)
vatproc$ = "calcvat"
plusvat = @(vatproc$):(amount,vat)
```

You can use string functions to construct the name of the procedure to be used in the vatproc\$ string variable. This is useful if you want to decide the name of the correct procedure to call during the execution of the program, e.g. when a user has selected a particular option from a list of choices or from a menu.

Note that the string variable (or string expression) itself does not include a symbol for the type (% , & or \$).

Decisions, decisions

In programs of any complexity it is often necessary to make decisions and act appropriately in response to different situations. For example, user input choices, data entered, the calculated value of a particular variable, a system event or state change—the list is endless. Depending on the nature of the situation you may want your program to change the value of a variable, call a particular procedure or behave in some other clearly defined way. OPL offers a number of so called ‘control structures’ for testing situations and making decisions, for branching to other parts of the program and for looping around to create repetitive actions. Let’s start by looking at the IF keyword and its relatives ELSEIF, ELSE and ENDIF. In a program, you might have several possible cases, e.g. a variable x% may be 1, or it may be 2, or 3, etc. and you may want to do something different for each case. You can do this with the IF . . . ENDIF structure. The general form is:

```
IF condition1
  do these statements
ELSEIF condition2
  do these statements
```

```

ELSEIF condition3
    do these statements
        :
        :
ELSE
    do these statements
ENDIF

```

The lines above would do either:

- ▶ the statements following the `IF` line (if `condition1` is met) or,
- ▶ the statements following one of the `ELSEIF` lines (if one of `condition2`, `condition3`... is met) or,
- ▶ the statements following the `ELSE` line (if none of `condition1`, `condition2`, `condition3`... have been met).

You can cater for as many cases as you like with `ELSEIF` statements. You don't *have* to have any `ELSEIF`s. There may be either one `ELSE` statement or none; you do not specify conditions for the `ELSE` statement. Every `IF` in your program must be matched by an `ENDIF`—otherwise you'll get an error message when you try to translate it.

So, if you have an integer variable (e.g. `flag%`) that can be set to a number of possible values, and the current value of `flag%` is to determine the behaviour of the program, you might use something like:

```

IF flag% = 0
    PRINT "You lost!"
ELSEIF flag% = 1
    PRINT "You won 1 point"
ELSEIF flag% = 2
    PRINT "You won 2 points"
    PRINT "and a free go."
ELSE
    PRINT "Error! Result undefined."
ENDIF

```

The last `ELSE` condition may seem superfluous, but you should always allow for unplanned error conditions.

What's your vector, Victor?

Another method of achieving the same result is using the `VECTOR` keyword to jump to one of a list of labels, according to the value in the `flags%` integer variable. The list of options is terminated by the `ENDV` statement. For example, you might structure the message procedure to display the result at the end of a game as follows:

```

PROC game%:
  LOCAL f%
  f% = 1 REM set a fixed test value
  result%:(f%)
  GET
ENDP

```

```

PROC result%:(flag%)
  VECTOR flag%
    LABELA,LABELX
    LABELR
  ENDV
  PRINT "Error! Result undefined!"
  RETURN

```

```

LABELA::
  PRINT "You lost!"
  RETURN

```

```

LABELX::
  PRINT "You won 1 point"
  RETURN

```

```

LABELR::
  PRINT "You won 2 points"
  PRINT "and a free go."
  RETURN
ENDP

```

Here, if `flag%` is 1, `VECTOR` jumps to the label `LABELA::`. If `flag%` is 2, it jumps to `LABELX::`, and if 3, `LABELR::`. If `flag%` is any other value, the program continues with the statement after the `ENDV` statement. The list of labels may spread over several lines, as in this example, with a comma separating labels in any one line but no comma at the end of each line. Note that the labels in the code must be terminated with a double colon.

In theory, `VECTOR...ENDV` can save you from having to write very long `IF...ENDIF` structures, with `ELSEIF` occurring many times. Personally, I find that `VECTOR` leads to poorly structured code and I rarely, if ever, use it. For example, look at the number of `RETURN` statements required to prevent the code in the other label options from being executed. If you don't understand this, see what happens if you take out all the `RETURN` statements from the `result%:(flag%)` procedure above and then call it with `flag%` variable set to zero.

In the next instalment we'll take a look at the pros and cons of the infamous `GOTO` keyword, handling errors in friendly fashion and tackle looping in depth.

Working with **AGENDA**



The fourth and final part of our tutorial aimed at the relative novice

by Steve Clack

No matter which Psion computer you are using, Agenda is by far the most configurable and customisable of all the built-in applications. As a result, we've spent a good part of the past three instalments looking at how to tune the myriad of settings to suit your own personal working habits.

YOUR Agenda

Once you've successfully got Agenda set up how you like it, do take a few minutes every so often to re-visit your preferences. Even after many months of use it's quite possible that you'll be able to refine the program further, and with many hours of intensive Agenda use under your belt you're more likely to pick up on a useful configuration option that you missed back in your novice days.

Sharing it out

Although the configuration of your Agenda is a very personal thing, access to the data within it may well be something you want (or need) to share. Individuals may want to make important events and occupied time slots visible to a partner or spouse, and members of office workgroups often need to keep their entire working schedule available

for assistants or colleagues to peruse, and in some cases even to allow others to fill in appointments on their behalf.

To synch or not to synch...

Although it's possible to merge multiple Psion Agenda files together (use 'Merge' or 'Merge in...' from beneath the 'File' menu), this is only practical for adding non-conflicting data, as the merged-in file can duplicate or overlap existing entries that share the same time slots. If you plan to share and update Agendas between multiple Psion machines and/or with desktop computers then you'll need to get to grips with synchronising.

Synchronising is an imprecise art. The biggest problem preventing faultless 'synching' is that it requires the matching of information between two different programs. Agenda on your Psion has its own particular way of presenting your diary entries and a specific set of options when entering your data. The corresponding Personal Information Manager (PIM) program running on your PC will have different setup options, and probably data types that don't exist in the same form on your Psion. The synchronising software therefore has to take a 'best-guess' at matching these dissimilarities—a process which *can* be fallible.

Although synchronising can be a vital part of Agenda usage, it's important to decide whether this approach is right for *you*. If your only requirement is that your secretary or spouse knows what appointments you have booked, it may be preferable to simply print out your Agenda listing for that period so that they can keep it handy. This approach may seem crude in these days of pervasive computing, but in the long run it *can* work out simpler, particularly if your Agenda contains only modest numbers of appointments.

For more information on synchronising Agendas, see the article on page 56.

Keeping it private

Whether you use PC synchronising or simple paper printouts, remember that your Agenda may contain potentially private information, even if it's just the times of your evening badminton games. If using a Series 3 then there's no easy way to separate private entries, other than by keeping them in a second Agenda file. Series 5 users can mark individual entries as 'Private', either by tapping the 'More...' or 'Alarm/More...' button while editing that entry and selecting 'Other' from the resulting tabbed dialog box, or via 'Agenda Synchronisation...' on the 'Entry' menu.

From the resulting dialog, uncheck 'Synchronise with other agendas' to stop that particular entry from being transferred in any synching operations, thus keeping it private. If you leave the box checked you can choose to copy over the entry, simply marking it as private, by checking the 'Private on synchronised agendas' line in the same dialog.

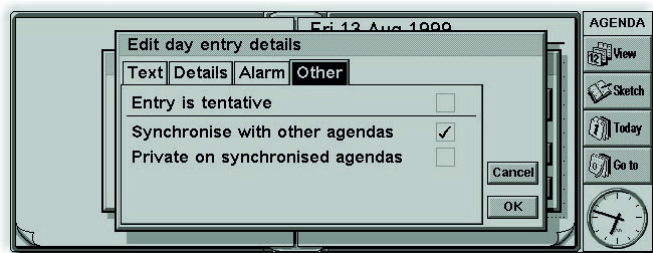
Printouts

Agenda on both Series 3 and Series 5 palmtops offers quite flexible printing options, though without any facility for graphical month or year view calendars such as those provided by virtually all desktop PIMs. Selecting the 'Print' command on either machine type allows you to select a date range across which you want to print, and on the Series 3 range you can even select Timed/Untimed/Anniversary and To-do categories individually.

The Series 5 can't isolate entry types in this way, but you can elect to choose a single entry symbol type for printing (see the previous instalment of this article for full details of entry symbols).

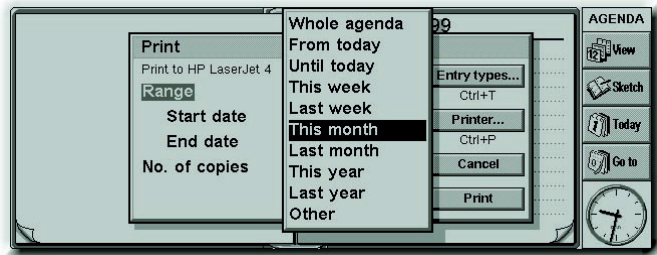
Graphical printouts

The inability to produce graphical output directly from Agenda is an annoying limitation, but if you have a suitable graphics



About to mark individual entries as 'Private'...

**Selecting your
print range
for the desired
time period**



program that allows you to print screen dumps from your Psion (such as the screen images you see throughout this magazine), then you can at least produce rudimentary graphical printouts. On-screen text wrapping considerations generally make this technique impractical for anything other than year planner views, but these can be quite handy.

To take a screen dump on the Series 3 range press [Psion]+[Shift]+[Control]+[S] while displaying the screen image you wish to copy, which will put a file called 'Screen.pic' into the top level directory of your internal drive. On the Series 5 range, press [Fn]+[Shift]+[Ctrl]+[S] and save to whatever name and folder you like from the resulting dialog box. For more information on suitable graphics software, see 'Something to draw on' in issue 3 (Series 3 users), and 'Graphics on the go' in issue 22 (for Series 5 users).

Tidying and archiving

As time passes, your Agenda file(s) will grow and grow. On the Series 5 range you can safely allow your Agenda files to grow, but on the Series 3 range it's *very important* to either archive or split any agenda that begins to approach about 50K in size. Failing to do this will eventually result in your file

becoming too large to open, or possibly corrupted.

The 'Tidy/extract' option under Agenda's 'File' menu gives the option to either delete files across a specified date range (be *very* careful when using this), or to copy them to a separate file, optionally removing those entries from the original file. If you wish to keep your old entries for reference then use this to create separate archives, breaking them into sub-50K chunks as necessary.

Compress it!

Regardless of the total number of entries, Agenda files will grow in size as existing entries are changed or deleted, because new data is merely appended to the old. Series 5 machines automatically purge Agenda (and Data) files as necessary, but on the Series 3 you should use [Psion]-[K] from time to time to manually compress the data.

Agenda add-ons

A number of Agenda add-ons are available from various sources, primarily as month view enhancements for those Psion models without this feature built in. A full roundup of all such add-ons will appear in a special feature article in the next issue of *Palmtop*.

On the NET

Our regular look at what's happening online, and where to point your browser

by Pete Sipple

Ones to watch

A new site, *epoczone*, sprang up on 28th July. With links, software directories and search engines, it has similar features to other large Psion sites but with a few new twists. With support from the rest of the Psion community, this could become an excellent resource. For a start, it's interactive—you can add your own feedback to many of the pages and set up links to your own web site in real time. The site runs polls of topical interest where you can vote online, a 'Webwatch' to track recently updated sites, and updates of new shareware releases can even be emailed



to you upon release. Check out this novel approach at www.epoczone.com.

Another hot site that's getting lots of positive feedback online is www.googol.net. This is another attempt to be the ultimate search engine for Psion users. Nicely designed, this

12:35:17pm, 15th August 1999

www.epoczone.com

Contents	New features!
• Latest • Browse • Search • Mailing lists • Current Poll • Past Polls • Webwatch • Top Twenty • Tips • Glossary • Codebase • User's Pages • Feedback	13:58:54 on 11th August 1999 I have added a few new features to epoczone today - firstly, when you log in, you can now access a page that shows all the updates that have happened to this site since your last visit. Secondly, items on the site (software, tips etc.) now have a "hits" counter, showing how many people have viewed them. Finally, the glossary, tips and codebase are now fully searchable. Oh, and I've just started a new poll concerning the netBook...
	Don't forget...
	12:30:02 on 10th August 1999

site also allows you to add their search engine to your own homepage.

Happy talk...

Two main topics have dominated the newsgroups since the last issue of *Palmtop*. Surprisingly, the arrival of the next generation of EPOC machines wasn't top of the list, and although it's been a 'popular' topic, I daren't risk quoting messages here. One character, who first made his presence known back in June, managed to antagonise just about everyone in every Psion conference—quite an achievement. A message personally addressed to this troublemaker summed up the thoughts of many...

"Would you mind if I collect all your messages and make a book of them, I think I can make a lot of money with such a book full of nonsense."
(bjjansen@casema.net)

The appearance of this character swamped most of the chat about the new machines. Jody's comments in *Musings* (on page 106) sums up many of the comments, but here are a couple of first impressions:

"My 5mx arrived yesterday. The screen is better, but I'd say not as clear as a 3a. However, after a couple of years with a 5, I'm appreciating the improvement—I can use the thing on my desk at home without resorting to power supply and backlight, as I had to with the Series 5. It is definitely faster. I did a test using Route Planner—painfully slow on a Series 5—and the same route came out in about a quarter of the time. Similarly it sorted my address database (200 records, 100K) in about a third of the time of a Series 5. The whole thing just feels snappier—when you open a menu card it's imme-

diately rather than slightly delayed. And spell checking is very much faster. It's been worth every penny!" (seyre@abelco.demon.co.uk)

"Is anyone else experiencing problems with a rocking 5mx? Mine is much less stable than my 5, the left foot is 0.3mm above the table."
(alastair@amjbrown.demon.co.uk)

"Mine is a teensy bit wobbly, but the [Tab] key requires a good hard press to work."
(Jonathan.Keating@net.ntl.com)

*"Wow, mine wobbles, yours wobbles. Your [Tab] key is c**p and so's mine! I guess they had to get creative with some new generic problems after they fixed the screen, paint and hinges!"*
(richard.balch@virgin.nospam.net)

Get to grips with OPL

If you've ever been tempted to do more with your Psion, why not have a dabble at programming? Here are a couple of links to various programming resources to help get you started:

- ▶ Ian Hatton's OPL tutorial:
members.tripod.com/ianhatton
- ▶ 3-Lib's programming resources:
3lib.ukonline.co.uk/programm.htm
- ▶ Dave Stafford's OPL manual:
www.primate.wisc.edu/people/dubois/psion/oplman/

Psion autopsy

Ever wondered what makes the Series 5 tick? Out of curiosity, Akaev, a Russian Psioneer, has dismantled his Series 5 and taken pictures every step of the way. Copyright prohibits us from printing his pictures here, so check out www.aha.ru/~akaev/english/indexe.htm to find out if he was able to rebuild it!



**Every item
published in this
section wins the
author TWO
free issues
added to their
subscription!**

Extra objects

Sheet objects can't normally be inserted within Agenda entries using the menu commands. However, if you start typing a new entry (or editing an existing one), pressing [Shift]+[Ctrl]+[O] will bring up an 'Insert object' dialog. This allows insertion of Sheet, Record, Word and Sketch objects in the usual way.

Eric Morton, Bristol, Avon

Multi-tabbed dialogs

Many built-in and commercial programs use dialog boxes that have several 'tabs'. It's easy to switch between the tabbed pages without the stylus by using [Ctrl]+[Tab].

Frank Ward, Akron, Ohio, USA

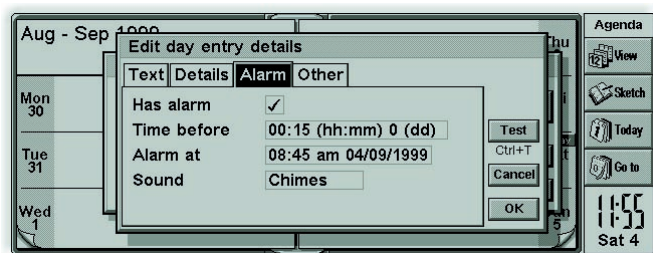
Second-hand, revisited

Following on from 'Any old iron?' in issue 24, covering the buying and selling of second-hand Psion hardware and software, there is one other very good way. On the Internet there are several online auction web sites, including some based in the UK, with prices quoted in pounds.

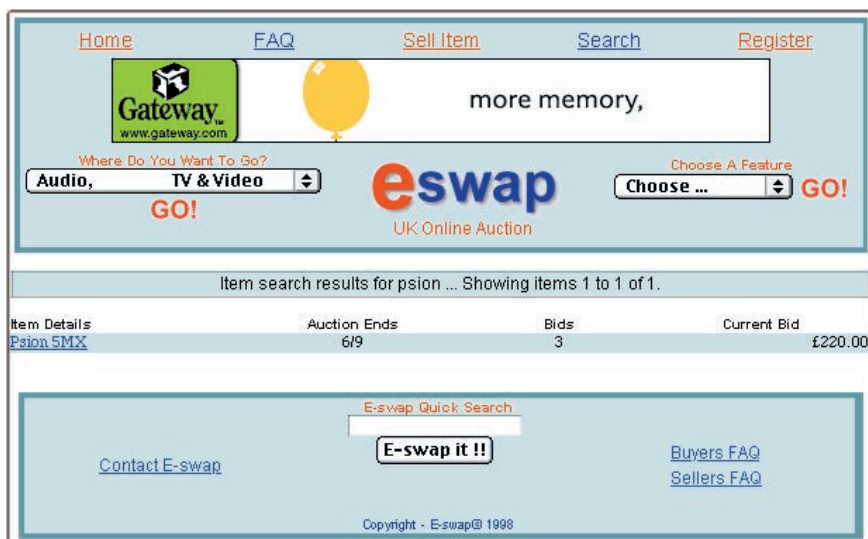
Four that I have found personally useful are: www.eswap.co.uk and humpty.co.uk and www.ebid.co.uk and www.qxl.com

These sites are quite user-friendly. Just search for "Psion" and go from there. Some auction sites also let you look at the results of previous auctions, to get an idea of the prices that items actually sell for. There are many other Internet auctions, but these are often US-based, with prices shown in dollars.

Bill Sooby, Amersham, Buckinghamshire



**Quick
navigation
between tabbed
dialog pages
without using
your pen**



Exponentially useful

In using exponential functions in Sheet on my Series 5 I have found a rather worrying bug.

On most other computers and programming languages, mathematical operators are worked through in a particular (precedence) order: brackets, exponent, division, multiplication, addition and then finally subtraction.

For example, a formula such as `'=B10*B12^2'` might be expected to yield the same result as `'=B10*B12*B12'`. However, this is not the case on the Series 5, which evaluates the expression in the wrong order. The workaround is to use brackets, in this case `'=B10*(B12^2)'`.

The bug appears to have been fixed for ER5 (such as the Series 5mx). Using brackets is also a good habit to get into whenever you are uncertain as to how a computer will work through a long formula or function.

David Ryder, Turku, FINLAND

Psion-to-Palm transfers

Many of us have friends with Palm organisers. The ability to 'beam' contact information between the Palm's Address Book and Contacts on the 5mx is useful in itself, but can also be used in a wider context. Say you need to transfer a block of text (in either direction) between the two handhelds. Simply create a new (bogus) Contacts/Address Book entry with an attached note. Inside the note, type or paste in your block of text. Now you can use 'Infrared send' (in Psion Contacts) or 'Beam Address' (on the Palm) to transfer the whole entry. Of course, once on the destination handheld it's a simple matter to cut and paste the text into any desired application.

Simon Bunting, Tewksbury, Gloucestershire

Don't forget that you can submit your tips or Q&A by normal mail to the address given on page 1, or alternatively by email to editor@palmtop.co.uk. Please mark emails as "Tips" or "Q&A".

Q&A

Get **your** Psion-related questions answered by our editorial panel...

Auto-fill on your Psion?

Q On my desktop spreadsheet there's a useful function called 'Auto-fill', in which the software automatically fills in ranges of cells with sequences of numbers and character strings, as appropriate. Is there a way to mimic this function in Sheet?

George Barker, Cloghran, County Dublin, EIRE

A Yes, but only practically for simple number sequences.

Input the starting value into the first cell in your range, and then move the highlight to the second. Enter a formula for the value of the first cell plus or minus

the increment you need, e.g. for cell B1 use the formula '=A1+1'.

To insert the sequence into any number of cells just highlight the cell containing the formula and 'Copy' its contents to the clipboard. Then highlight the remaining cells you wish to fill and 'Paste' (or 'Insert' if using a Series 3) the clipboard's contents directly into the range. Sheet will intelligently adjust each cell's formula to refer to its neighbour.

If you wish to increment the values by a number other than one, simply use the format '=A1+x', where 'x' is the size of the increment.

A4	=A3+10				Sheet
	A	B	C	D	E
1	Experiment Halley. 12th Sept 1999				
2	Reading no.	Value			
3		10			
4		20			
5					
6					
7					
8					
9					

Normal Graph

 Sat 4

Note the formula entered into the current cell...

Selecting the range for pasting your sequence

A5	=A4+10				Sheet
	A	B	C	D	E
2	Reading no.	Value			
3		10			
4		20			
5		30			
6		40			
7		50			
8		60			
9		70			
10					

Normal Graph

 Sat 4

Common ranges of text, such as 'Mon', 'Tues', 'Wed' or 'Jan', 'Feb', 'Mar', etc. are best done by keeping these sequences stored in a separate Sheet file elsewhere on your Psion. You can then easily copy and paste these ranges as required.

Going wireless on a Series 3?

Q I have a Psion Series 3c and an Ericsson SH888 infrared mobile phone. Is it possible to collect my email messages using this combination?

Alan Goswell, Berkshire

A No. The infrared implementation on the Series 3c and 3mx is unfortunately not complete and will not work with infrared-equipped GSM mobiles. With the SH888, you're also restricted as there's no direct cable solution for a Series 3 machine.

To connect to the Internet you will require a cable connection to a conventional modem. You will also need Psion's PsiMail Internet software, although this is no longer produced and you may find it difficult to obtain. If all else fails, ex-Series 3 users may have an unused copy which they can pass on.

PsiWin woes

Q Help! The PsiWin software keeps disconnecting my Series 5mx and I have to reboot my PC to re-establish the link. Is this a known problem?

Janice Thompson, Stamford, Lincolnshire

A We've had several readers complaining of this symptom, all using PsiWin 2.3. It seems to be a bug in this version and Psion will hopefully issue an update in due course. Please contact Psion directly to report your problems.

In the meantime, several people have found success by removing 2.3 and re-installing an older version in its place (such as the freeware 2.1 as supplied on all *Palmtop* CDs). Note that if you do 'downgrade' in this way you will lose certain synchronisation functions. See also 'Starting up: synchronising' on page 56 and the PsiWin 2.3 review.

CD-ROM searching

Q Is it possible for *Palmtop* to change the Java search engine on the free CD to work on my PC, on which the CD drive is disk 'G'?

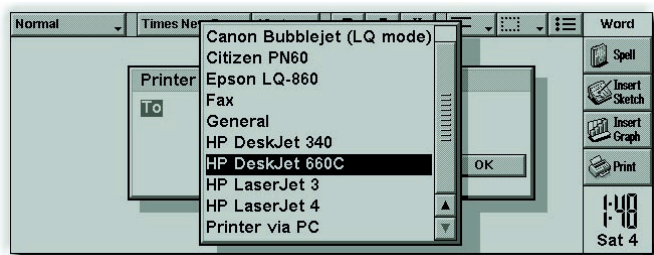
Peter Mitchell, Dorking, Surrey

A Yes, perfectly possible, and we will make this change from CD09 onwards, to accommodate all drive letters from 'D' to 'H'.

Printer problems

Q Can you advise? I recently purchased a Canon BJC-80 printer to use with my Psion 3c. I'm having real problems with large blanks appearing on my printouts, and also I cannot seem to print in 'landscape' mode. I find Psion's User Guide quite poor in explaining how things like 'Body text' relate to my printed output.

Roy Giddis, Epsom, Surrey



Displaying the list of printer drivers built into the Series 5mx

A It has always seemed that Psion palmtops and Canon printers rarely fit well together. In particular, you have discovered that the lack of a specific driver for your printer is causing you grief. Not being able to print in landscape mode is another symptom of this. We realise that it is probably too late for you, but in general would recommend Psion owners to buy printers that are *explicitly* listed in the 'Printer setup' dialog.

Printer compatibility is always a thorny issue, and we strongly suggest that prospective printer buyers find either a Psion specialist or a supplier who is happy to allow test printing from the Psion before purchase. Take your time when testing and try as many examples as possible, as one successful printout does not guarantee that everything else will work as expected.

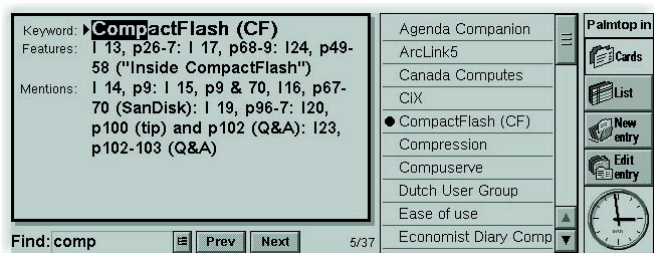
To answer your final point, understanding the use of styles is crucial to making the most of the Psion word processor, and also to making sure that the typefaces used in your documents (and therefore your printouts) are rendered consistently.

As a Series 3 user, don't be put off by Psion's unintuitive abbreviations for paragraph styles, such as 'ZA', 'ZB', and so on. Make certain you understand the principle of using paragraph styles in the first place and also that your styles are matched well to your chosen printer driver. See our 'Working with WORD' series in back issues 6-11 for an in-depth tutorial.

Searching back issues

Q I've recently subscribed to *Palmtop* magazine, together with a full set of back issues, which I find tremen-

Looking up a topic in the Palmtop magazine index...



dously useful. Isn't it possible to produce a printed index to all this content?

Dennis Cotton, Cheltenham, Gloucestershire

A A printed index would be unwieldy and require constant updating as each new magazine is published. Instead, we have compiled a freely available electronic index, which runs in the standard Data application on both Series 3/Siena and Series 5-compatible palmtops.

The index can be downloaded from our web site at www.palmtop.co.uk, or copied from a recent Palmtop CD.

Multi-column Word documents

Q Is there any software available to allow you to include more than one column of text within a single page of a Word document, like in a newspaper? I am about to upgrade my 3a to a 5mx, but one of the reasons is to enable me to produce simple four page newsletters and fact sheets.

Paul Roberts, Tooting, London

A Not at present. One way around this annoying limitation is to create multiple text blocks in a Sketch document. Another (cumbersome) method is to create one Word document with margins set for the left-hand column of text, then another to create the right-hand column. You then run the document once through your printer to create the left half of the page, then a second time for the right half. Both techniques are quite unsatisfactory for multi-page documents, especially the latter, which will flow text incorrectly.

Template Q&A revisited

After reading Jonathan Thomas' question in issue 22, I realised that it is possible to access a Word template from the Series 3 System screen. Here's what to do:

1. Create the required template (e.g. 'Letters.wrt').
2. Create a subdirectory for your templates (e.g. '\wrd\template') and then copy this file into it.
3. Highlight the Word file list on the System screen.
4. Use the 'Create new list' command to create a new list for Word. On the top line of the dialog type in the name of the template subdirectory (e.g. "\wrd\template"). On the second line type "wrt" as the file extension. Finally, choose 'Word processor' as the 'Type' and save this setup under a suitable name on the 'Save list as: Name' line (e.g. "Template").

From the list that now appears on your System screen just move to the template you wish to use and press [Enter]. Note that, once into the new document, you should immediately use the 'Save as' ([Psion]+[A]) command to store it as a new file in a different directory. You will need to do this by pressing [Tab] on the top line of the 'Save as' dialog to invoke the file selector and navigating to the '\wrd' directory, pressing [Enter] on the '\wrd\' line. On the 'Use new file' line of the same dialog, make sure you choose 'Yes'.

Stuart Gray, Bristol, Avon

Musings...

Jody Armstrong looks at the pros and cons of producing a colour-screened Series 5

The gimmick market

Well, the 5mx is here, and already we are hearing harsh criticism for its lack of 'colour'. The decision to forego a colour screen at this time seems to be supported by the computer press, with the reviews I've seen all upholding the use of a monochrome display. But there are those on the Internet (specifically people in the Psion-related newsgroup area) who feel that as a result of this decision, Psion are doomed. Let's pick at their logic.

Okay, so let's hypothesize that Psion have released a colour 5mx. The unit is bulkier than the monochrome 5mx and its batteries don't last as long, but you do get to make your text look colourful. Read that last sentence carefully—the key words are 'bulkier' and 'batteries', two of the most important factors when choosing a palmtop computer. It has to be portable and its power source needs to last a long time. Colour machines currently on the market (mostly WinCE at the moment) don't run for very long on batteries, and the majority are not especially portable. I speak from experience.

I have a WinCE sub-notebook. Its batteries last for no more than three hours on full power, around five if I activate power saving, which cuts the processing speed by half, making it virtually useless. So I have three hours out of the office before I have to panic

and change its battery pack (adding more bulk) or plug it into the mains for a recharge (adding more bulk yet again). It's no longer a portable option if I need to carry all that excess baggage around.

Battery death

Let's take a look from another point of view, the PalmPCs. Psion doesn't have a market share here, but 3Com does. I have a PalmPilot too—they're small and easy to use. Batteries last even longer than on a Psion—I've had mine since January this year and its batteries have been changed only twice. Enter the new colour PalmPC. It does the same thing, but it's bigger and the batteries need recharging every *three* hours, plus you can't buy them in your High Street shop if the need arises.

You get the idea. Colour is a gimmick, pure and simple. There is *nothing* on a *palmtop* computer that requires a colour display so much that it should compromise the portability. It looks nice, but most Word or Data documents look pretty much the same in monochrome as they do in colour.

Some people claim that colour is useful for showing presentations. That's true in principle, but most will need a laptop for this anyway, as few palmtops have the capacity

for more than the most basic of presentations, especially those containing movies and large images. In fact, presentations are almost the only real use for a colour palmtop I can think of, and it simply isn't practical given current specifications.

Hi-fi handhelds?

Another classic gimmick now being trumpeted by manufacturers is the media capability of new colour WinCE palmtops, with MP3 audio, Quicktime and MPEG movies all appearing on the latest crop of machines. Again, let's take a closer look.

MP3 files, which are simply compressed audio, can be very large (at least by palmtop storage standards). The average song will be around 2-4MB, and on many of these new machines that's a quarter of your available storage. An MPEG movie of around 30 seconds or so is up to 5MB, and Quicktime movies can be even larger.

The memory eaters

Relatively few Psion owners own CompactFlash cards, simply because they don't need them. The casual palmtop buyer could be swayed into buying a device because it has all those new audio features, but in reality they are of little practical value. How much audio and video footage do you *really* intend to keep on your palmtop? Why listen to music in MP3 from a tinny palmtop speaker when you can use an actual MP3 Walkman, or just a normal tape player? It makes no sense.

Nowadays the palmtop buyer is swamped by dozens of products claiming to organise and simplify their lives. Computer megastores have vast displays of gadgets and gizmos, each promising the ultimate mobile solution. The majority of consumers will be swayed by that all-important 'feature list'—most certainly colour, MP3 audio and video playback will be high on the young sales assistant's list, because they're all saleable buzz-words. The average consumer will have little idea *why* they need these features and will probably realise after they've purchased a unit that it isn't as useful as they were led to believe. And boy, is it heavy.

It's important for us, as owners of palmtops and prospective buyers of new ones, to be cautious when looking at new machines. We must discern the actual benefits from the largely cosmetic ones. For most of us portability and functionality are the main issues with a palmtop, not MP3 playback capacity or a colour screen.

Psion should be applauded for resisting a gimmick-filled palmtop machine and providing a stable, functional and well-constructed device once again.

